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THE 1913 COTTON CROP.

IN 208 days of the present cotton season, up to and including last Friday, and only a few days short of seven months, the amount of American cotton brought into sight was 13,250,046 bales, an increase over the same period last season of 755,798 bales. That is the record of the movement of the commercial crop, which includes part of the crop planted and ginned last year. According to the estimate of the National Census Bureau, the 1913 ginning aggregated 13,964,981 bales, not including linters, an increase over the amount ginned in 1912 of 476,442 bales. Including linters obtained in crushing 4,753,395 tons of cottonseed, the amount ginned in 1913 was 14,594,000 bales, an increase over 1912 of 503,137 bales. The crop by States in the past three years is shown in the following table:

Cotton Ginned, Excluding Linters, Running Bales.

	1913.	1912.	1911.
Alabama	1,482,354	1,328,297	1,695,284
Arkansas	1,036,841	770,937	908,014
Florida	66,514	58,833	94,471
Georgia	2,345,882	1,812,778	2,794,295
Louisiana	455,124	374,793	380,826
Mississippi	1,248,724	1,094,376	1,169,066
Missouri	63,775	53,538	91,119
North Carolina	835,435	906,351	1,126,276
Oklahoma	841,884	1,005,109	1,016,538
South Carolina	1,414,499	1,224,245	1,692,146
Tennessee	386,546	267,439	439,027
Texas	3,771,271	4,645,309	4,107,152
Virginia	24,455	25,499	31,099
Total	13,933,144	13,477,504	15,536,313
United States	13,964,981	13,488,539	15,553,073

Linters, Running Bales.

	1913.	1912.	1911.
Alabama	53,700	28,839	40,667
Arkansas	40,617	34,084	31,836
Florida	2,621	1,415	1,955
Georgia	110,367	76,185	80,313
Louisiana	21,933	17,927	15,592
Mississippi	60,955	45,228	46,718
Missouri	3,426	4,217	4,217
North Carolina	24,468	28,729	30,131
Oklahoma	38,954	52,016	39,260
South Carolina	46,321	35,517	36,989
Tennessee	24,724	22,292	28,815
Texas	174,846	243,214	190,096
Total	622,932	597,979	549,589
United States	629,019	602,324	556,276

Dealing with the ginnings, exclusive of linters, there were increases in 1913 over 1912 in every one of the 13 Southern States mentioned except North Carolina, Oklahoma, Texas and Virginia, the ginnings of Texas, 3,771,271 bales, being 874,038 bales less than the record crop of 4,645,309 bales of 1912. The conditions responsible for the falling off of the Texas crop prevailed to some extent in Oklahoma and resulted in a falling off of 163,225 bales in the crop of that State. Conditions were more favorable in most of the Southeastern States, Georgia having an increase of 533,104 bales and Mississippi one of 244,348 bales, while west of the Mississippi, Arkansas had an increase of 265,904 bales. The increase in 1913 over 1912 did not bring the total ginnings

up to the record of 1911, which amounted to 16,109,349 bales, including linters.

Of the commercial crop brought into sight up to last Friday 7,591,702 bales, or nearly 58 per cent., were exported, an increase of 521,931 bales over the preceding season, and 4,617,158 bales were taken by spinners of this country, an increase of 133,272 bales. The increase in takings by Southern spinners was 238,188 bales, the takings in the rest of the country showing a decrease of 104,916 bales. The takings by the Southern mills to date are within 473,460 bales of their total takings in the season of 1912-13, indicating that the tendency in recent years of Southern mills to take a larger and larger proportion of the American cotton crop will be maintained this year. In connection with this subject it is interesting to note that while the total increase in the value of six classes of exports from this country in the first eight months of the present fiscal year was from \$772,310,759 to \$816,292,136, or \$43,981,372, the increase in the value of exports of cotton was from \$447,197,616 to \$498,810,358, or \$51,632,742, there being marked decreases in the value of exports of breadstuffs from \$143,792,349 to \$115,214,881.

FOR INDUSTRIES OF CHARLESTON.

UNDER the auspices of the Chamber of Commerce of Charleston, S. C., organization is planned of the Charleston Industrial Corporation with a capital stock of \$250,000 to induce the establishment in the city and its vicinity of manufacturing enterprises. It is proposed that the stock be divided into 2500 shares of a par value of \$100 each, not more than 20 per cent. of the subscription to be payable in any one year, and the subscriptions to be called for when required by the board of directors; that the corporation be limited to the investment of not more than 20 per cent. of its subscribed capital in any one year, unless stockholders authorize a larger amount; that the corporation, unless authorized by the stockholders, shall not lend to any concern or purchase its securities in an amount greater than 20 per cent. of the subscribed capital stock of the corporation, and that, as a condition to subscribing to the stock of any concern or assisting it financially, a member of the board of directors of the Industrial Corporation shall become one of the board of directors of the assisted concern. This project was recommended to the Chamber of Commerce by a special committee after a careful study of methods employed in other cities to attract new industries. Long concerned with commercial matters, although the center of some important industrial enterprises, Charleston, it is felt by progressive business men, has natural advantages for the development of manufacturing, and they believe that the organization of an industrial corporation will be an earnest of a determination to make the advantages available.

This forward movement by the Chamber of Commerce of Charleston is quite timely in coinciding with the increase of interest in the possibilities in foreign markets for manufactured goods promised by the opening of the Panama Canal. Many months ago the MANUFACTURERS RECORD began to urge upon Southern cities at tidewater to equip themselves wherever possible for participation in the benefits of the canal by acquainting themselves with the needs of foreign markets and establishing factories to meet those needs. It is not going to be a case of American manufacturers gaining immediately a foothold in new markets simply because the United States has made the Panama waterway. Other peoples have had the same object in view and may be depended upon to compete at every turn with American manufactures. To win out, our manu-

facturers must do away entirely with the idea of using foreign markets as a dump for surplus. They must subordinate the idea of persuading others to buy because they have something to sell to the idea of making goods which others are anxious to buy. They must consider every point of vantage, including location of factories close to shipping. In that particular Charleston should appeal to them. The Industrial Corporation of that city will make no mistake in emphasizing that fact.

RAILROADS HAVE NEEDS AS WELL AS OBLIGATIONS.

PRESIDENT FAIRFAX HARRISON of the Southern Railway, in the series of talks he is giving before business bodies of the South, is emphasizing some general principles as to the relations of the railroads and people which, if given due consideration, ought to be influential in inducing a much desired adjustment of public opinion on the subject. Before the Commercial Association of Danville, Va., last week he enlarged upon the idea that a prosperous railroad system means a powerful factor for the maintenance and promotion of general business prosperity, and he expressed the belief that, as between public regulation of railroads and Government operation of them, the former should prevail as contributory to prosperity. He argued that while there are but few to claim that regulation has as yet been a complete success, all admit that it has abolished many abuses, even though it has not yet responded to a sense of responsibility for results. He said:

So far as applied to railroads, regulation has until now been concerned solely with discovering and enforcing the obligations of the railroads, and in that respect it has achieved a large measure of success. It has, however, undoubtedly been handicapped by an undiscriminating attempt at the same time to recognize, foster and applaud that kind of competition which all experienced men know is responsible for many of the most flagrant abuses that have been regulated and abated.

We know that the ideal is fair competition and fair regulation, but just as in the past much of the competition we have known has been unfair, so much of the regulation we have had has been unfair.

For myself, I believe, and have always believed, in the regulation of the railroads by public authority. I have seen the manifold good it has done, but I have never been blinded as to what has been the practical meaning of much of the regulation we have had until now. I have regarded it as the pioneer work and not to be judged as an achievement. I have hoped steadily, and now believe confidently, that we are about to realize a system of regulation which will recognize that a railroad has needs as well as obligations, and that there are abuses by the public of the needs of a railroad as great as any abuses by a railroad of its obligations to the public.

The past divergence of interest between public authority and private industry was more apparent than real, but it has taken many years of legal warfare to achieve a realization, at once public and private, that the prosperity of the country is the supreme end for which both parties are working, and that a complete victory by the Government, which would leave industry prostrate, can do little good to the people whom the Government represents.

During this contest, in which the principle of regulation has finally prevailed, and is now accepted, certainly by the railroads, as everyone knows, there have been many sober-minded men who despaired of ultimate and successful peace. Such faint hearts have been flirting with the theorist, who offers a panacea, with the result that there seems to be a strong drift of radical opinion in the United States toward Government ownership of public utilities.

This has found definite expression not only in the increase of municipal ownership of municipal utilities, but in the tendency of the Federal Government to undertake activities which used to be considered of a private nature. One may cite as an illustration of this tendency not only the Panama Canal and railroad, but the construction of battleships in navy-yards, the maintenance of gun and ammunition factories and the development of the parcels post. Furthermore, there are now being debated proposals that the Federal Government should own and operate pos-

tal cars, should take over the telephone and telegraph lines, should acquire an armor-plate factory, and, finally, and most significant of all, should construct and operate a railroad in Alaska.

The only working alternative of such proposals, and the best insurance against the spread of such abnormality in the life of a free industrial people, seems to be the establishment of the principle of Government supervision and regulation of privately owned and operated utilities on such an enduring and successful basis as will not only control and prevent for all time the abuses which have marked the past history of the railroads, but will permit them to prosper.

Mr. Harrison contended, further, that if the principle of balanced and responsible regulation of the railroads is to prevail, the ownership and administration of them remaining in private hands, subject to such regulation, it is only necessary for lawmakers to be convinced that their laws have secured honest and efficient operation of the railroads for lawmakers to become alertly interested in their successful development and prosperity. He defined as a really prosperous railroad one which collects from the public charges fairly remunerative for the service it performs, and, after dealing fairly with its employees, is able to meet its obligations and pay an income to its stockholders commensurate with the actual risk they have taken in their investment and the current return earned by similar investments in the markets of the world. It must, however, have, after such obligations have been met, a surplus which will permit it to make improvements called for by increasing demands.

That last-mentioned fact has become somewhat obscured in current discussions. Indeed, too general tendency in railroad regulation by the public has lost sight of the fact that the means must be obtained to keep the railroads up to the average standard of efficiency for immediate traffic without regard for future growth and the agency of the railroad in promoting it. Regulation resulting in increased expenditures has too seldom been accompanied by regulation giving opportunity for earnings to meet the increase, while the reluctance of investors to provide additional capital for the railroads traceable to the consequent depression among the railroads has been accentuated by dread of a state of public mind which fails to recognize any merit whatever in the railroad's position. Such reasonable utterances as those of President Harrison ought to go a long way toward correcting erroneous public opinion.

BUILDING AT HOUSTON.

OF 1126 permits for permanent building improvements issued at Houston, Tex., in the 12 months ended with February, 10 were for structures of an estimated value of \$100,000 or more. They included a ten-story brick and concrete office building to cost \$280,000, an eight-story fireproof store building, \$272,000; a three-story fireproof high school, \$250,000; a reinforced concrete compress and warehouse, \$212,000; a five-story fireproof department store, \$200,000; a four-story reinforced concrete assembling plant, \$200,000; a three-story reinforced concrete theater, \$135,000; a five-story concrete dormitory, \$103,800; a ten-story brick and concrete office building and theater, \$100,000, and a two-story fireproof passenger depot, \$100,000. The aggregate cost of these structures will be \$1,852,800, or about 37 per cent. of the aggregate cost, \$4,965,635, of all the buildings for which permits were issued. The character of other structures is indicated by mention of \$242,715 for three steel and concrete bridges, \$60,000 for a three-story brick store and flat, \$66,000 for two three-story brick apartments, \$77,800 for a three-story brick store and hotel, \$25,275 for two two-story hollow-tile residences, \$30,000 for one two-story brick and concrete residence, \$33,500 for three two-story brick and veneer residences, \$50,000 for a three-story frame-tile concrete store and flat, \$77,100 for eight two-story frame and stucco apartments, \$717,340 for 917 one-story frame cottages, and \$521,900 for 169 two-story frame residences. The aggregate value of these improvements is \$483,295 greater than the value of improvements for which permits were issued in the preceding year. The wide range in the class of buildings and in the character of the materials to be used indicates not only promptness to use modern building materials, but activity in construction consequent upon the growth of the city.

THE RAILROADS' CASE CLEARLY PUT.

AT the recent annual dinner of the Traffic Club of Pittsburgh President Daniel Willard of the Baltimore & Ohio Railroad Co. presented in a clear and concise manner the salient facts in support of the railroad companies' demand now before the Interstate Commerce Commission that they be allowed to increase their freight rates 5 per cent. He recalled that 35 railroads in official classification territory have since 1910 made additional investments in their properties for greater facilities and equipment to the amount of more than \$659,000,000; also that last year, although the gross earnings of these very lines were \$186,775,000 in excess of 1910, their net earnings were actually \$16,311,000 less, thus revealing that the companies had not only failed to earn any return upon the additional capital invested, but that they had not earned as much as before upon the former property investment by more than \$16,000,000.

Moreover, he directed attention to the fact that men who have carefully studied the railroad situation with respect to the natural growth of traffic have stated that the railroads of the United States will for some years to come require an additional expenditure of \$1,000,000,000 a year to meet the needs of commerce, and that this capital could be obtained only through private enterprise, but men would not invest money in railroads unless it would yield as good and safe returns as might be expected from other investments. Then, if capital could not be assured of such results, it would not be forthcoming, and nothing could more effectually check, if it would not actually stop, the growth of commerce than insufficient transportation facilities.

Having thus briefly and plainly stated the position of the railroads, President Willard said that if they were permitted to make such reasonable charges for service as would, with economical and intelligent operation, yield sufficient in net earnings to pay a fair and reasonable return upon the required capital, there would be no difficulty. This condition could be brought about by granting the increase of rates which the roads have asked.

Mr. Willard's argument is a strong one. It is well known that the railroad companies have for the last few years been "up against it," to use a familiar expression. The tendency of rates has been downward; the cost of labor and material steadily upward. It costs more to employ men than it did several years ago, and cars and engines are also more expensive. It used to be possible for a railroad company to buy 100 locomotives of average size and capacity for \$1,000,000; now they cost nearly, if not quite, twice that much. Some of this increase in engine cost is owing to the greater average size, but much of it is due to higher manufacturing costs as regards wages and materials. There has also been a considerable advance in the price of both passenger and freight cars, and, in addition to this, has come the demand for an entirely different sort of car—the all-steel passenger coach—so that safety may be greatly increased. Furthermore, in some States there are what the railroads call "full-crew" laws which compel them to employ on freight trains more men than are actually necessary, it is claimed, to operate trains with perfect safety. Air brakes and automatic couplers are now so generally in use that the same number of men is not needed to operate any train safely over its line.

It has seemed as if the railroads were the main targets which legislators liked to take a shot at. There has been some modification of this attitude for the reason that in certain States, at least, it was discovered that necessary railroad construction to develop new territory was halted on account of hostile laws. And it used to be that the public delighted to see the railroads heckled. This disposition has, however, largely abated; the companies have mended their ways—did it a long time ago—and the people generally feel much more friendly to them. There is ample evidence of this friendliness to be found in current expressions of opinion concerning the application of the Eastern lines for authority to raise their rates.

Whatever the decision of the Interstate Commerce Commission may be, it is earnestly to be hoped that the case will result in the roads being permitted to find a way out of the difficulty which will insure a full maintenance of present facilities and a liberal provision for the requirements of the future. The

business of this country is swelling at such a rate that to do or to permit anything to be done which would check advancement would be no less than a crime, because so many individuals would suffer in consequence.

NEW ORLEANS PUBLIC COTTON WAREHOUSES.

IT is hardly likely that the plan for a South-wide system of bonded cotton warehouses will not consider the project for which a bond issue of \$3,000,000 has just been floated for the construction at New Orleans, under the auspices of the port commissioners of that city, of a thoroughly modern cotton terminal and warehouse plant. This undertaking is deemed of so much importance that Edwin E. Judd, commercial agent at New Orleans of the Department of Commerce, has made a report to the Department giving some details and an estimate of the benefits expected. As tentatively outlined, the plans call for six reinforced concrete warehouses, each 600 feet long, 100 feet wide and eight stories high, equipped with the most approved mechanical devices for dispatch in handling cotton, and with a loading wharf and shed along the entire 3000 feet of frontage on the Mississippi River. Each warehouse will have a maximum storage capacity of 54,000 bales of cotton, exclusive of the ground and top floors, and the plant will easily be able to take care of yearly receipts of 1,000,000 bales or more. Among the advantages looked for are the elimination by the use of machinery of many of the present costs of handling, minimum storage charges, sufficient only to cover the cost of operation, interest and depreciation and to provide a sinking fund to retire the bonds, as the plant will be public property, and a reduction in insurance rates. One of the greatest benefits, however, will be the effect of the new warehouses on the financing of the cotton crop, as it is expected that certificates of cotton stored in these fireproof, State-owned warehouses will be first-class security for loans and will have a negotiability equal to that of grain certificates. Mr. Judd points out that at present loans by New Orleans banks are made on a basis of the borrower's credit rating, rather on cotton collateral, that with readily transferable certificates loans can be made from other banks in other parts of the country, and that this facility, together with the ability to store cotton at the wharf at a low cost, will enable cotton owners to hold their cotton until they choose to sell, instead of letting it move to the market as soon as it has been ginned. Another expected advantage in the new system will be the opportunity given for cotton dealers to take advantage of low freight rates offered by tramp steamers, instead of depending upon shipments on through bills of lading carried by line steamers operating under rate contracts with the railroads, and in this connection a transference of the work of distributing cotton to European consumers from European centers to New Orleans, thus eliminating expenses of rehandling.

The workings out of this plan will be studied closely by growers, shippers and manufacturers of cotton, all of whom will share in the advantages of its success. It seems to be a forward step toward the proper handling of a crop second to none in its industrial, commercial and agricultural importance and, yet, one which has been neglected to a remarkable degree when all of its potentialities are considered. The American cotton crop with its seed has now an annual value of about \$1,000,000,000, nearly one-sixth of the value of all farm crops of the country. In the past 34 years the cotton crops of the South have had an aggregate value of something more than \$17,000,000,000, or about \$9,000,000,000 more than the value of the world's production of gold, and nearly \$6,000,000 more than the world's production of gold and silver in that period. In none of those years has the combined value of the output of all the gold mines and all the silver mines in the world equaled in value the value of the South's cotton crop with its seed, and in only five of the years was the output of all the gold mines in the world sufficient to pay for the cotton exported from the United States.

Of the total value of merchandise exported from the United States in the last fiscal year, \$547,357,195 represented raw cotton, \$53,743,977 manufactures of cotton and \$36,291,758 cottonseed and its

products, an aggregate of \$637,392,930 for products of the cotton plant, and nearly 26 per cent. of the total value of all merchandise exports from the country. There are 144,000,000 cotton spindles in operation in the world, and Southern cotton fields supply 65 per cent. of the 22,000,000 bales of cotton consumed annually by the spindles.

Any system, therefore, which will effect economies in cultivating and marketing the cotton crop will be a distinct and valuable addition to the facilities for the advancement and comfort of the human race.

INDUSTRIAL ACTIVITIES SOUTH.

Since January 1, 1914, there has been published in the columns of the *Daily Bulletin* and the *MANUFACTURERS RECORD* a total of 16,157 concise items regarding Southern industrial developments, building construction, railroad and financial operations, and general business interests. Under their various appropriate headings, these items were previously detailed for January and February. The following table shows the number of items published in March, and presents the totals for the three months:

	Totals for March.	Totals for three months—January, February and March.
Industrial and Developmental.		
Bridges, Culverts, Viaducts.....	91	255
Canning and Packing Plants.....	36	74
Clayworking Plants.....	14	52
Coal Mines and Coke Ovens.....	33	123
Concrete and Cement Plants.....	2	8
Cotton Compresses and Gins.....	29	64
Cottonseed-oil Mills.....	20	39
Drainage Systems.....	27	64
Electric Plants.....	122	380
Fertilizer Factories.....	7	41
Flour, Feed and Meal Mills.....	16	72
Foundry and Machine Plants.....	39	107
Gas and Oil Enterprises.....	192	474
Ice and Cold-storage Plants.....	66	184
Iron and Steel Plants.....	4	6
Irrigation Systems.....	4	9
Land Developments.....	80	265
Lumber Manufacturing.....	72	236
Metal-working Plants.....	12	33
Mining.....	33	112
Miscellaneous Construction.....	51	157
Miscellaneous Enterprises.....	132	361
Miscellaneous Factories.....	182	636
Motors and Garages.....	44	142
Railway Shops, Terminals, Roundhouses, etc.	9	19
Road and Street Work.....	257	756
Sewer Construction.....	99	270
Telephone Systems.....	31	94
Textile Mills.....	37	121
Water-power Developments.....	10	46
Water-works.....	193	336
Woodworking Plants.....	56	165
Buildings.		
Apartment-houses.....	156	431
Association and Fraternal.....	40	141
Bank and Office.....	117	338
Churches.....	147	401
City and County.....	74	248
Courthouses.....	29	78
Dwellings.....	514	1,452
Government and State.....	42	138
Hotels.....	76	201
Miscellaneous.....	98	289
Railway Stations, Sheds, etc.....	37	110
Schools.....	215	611
Stores.....	256	817
Theaters.....	47	110
Warehouses.....	83	193
Railroad Construction.		
Railways.....	113	382
Street Railways.....	29	85
Financial.		
Corporations.....	173	476
New Securities.....	487	1,415
Fire Damage.....	4,613	13,616
Machinery, Proposals and Supplies Wanted.....	263	748
	637	1,793
Totals.....	5,513	16,157

A \$200,000 Cotton Products Plant.

A \$200,000 cottonseed-oil mill and cottonseed products handling plant will be established at Texas City by P. A. Fitzhugh and H. Bailey of Houston, 100 tons to be the daily capacity of the mill. This plant will be located on the second story of the Texas City Transportation Co.'s warehouse A, on the water front. The warehouse now has but one story, and the construction of the second story will be at once begun, conforming to the general lines of the warehouse. Reinforced concrete is the construction adopted. The dimensions are 900x155 feet, and the floor space will be 139,500 square feet. A 200x50-foot seedhouse and a 200x70-foot hullhouse will also be built, both of fireproof construction.

Experience With Bonded Cotton Warehouses

In connection with the Duke plan for a system of bonded cotton warehouses in the South the *MANUFACTURERS RECORD* has noted that at more than one point the plan has been in operation for several years. It is believed that the opinions of men who have had practical experience with the plan will be of interest at this

juncture, and, at the request of the *MANUFACTURERS RECORD*, Mr. W. P. G. Harding, president of the First National Bank of Birmingham, Ala., and Mr. T. B. Stackhouse, president of the Standard Warehouse Co. of Columbia, S. C., have expressed such opinions as follow:

JUDGMENT OF NINE YEARS' EXPERIENCE.

By W. P. G. HARDING, President First National Bank, Birmingham, Ala.

I have for many years recognized potential development for the South and great advantages to the world's cotton and textile trade through improved and systematized methods of handling and warehousing the South's cotton crop.

Not only have conditions surrounding the physical handling of the bale resulted in tremendous waste, but lack of proper methods and careful oversight in the issuing of warehouse receipts, loading certificates and other paper representatives of the actual bales have made the business of financing this billion-dollar yearly product insecure and unsatisfactory and resulted from time to time in serious losses.

As far back as 1903 I interested myself, with other business and financial people, in an attempt to correct some of these troubles in our immediate section.

In 1905 I assisted in organizing the Warrant Warehouse Co. of Birmingham, one of the first warehousing units to give absolutely up-to-date physical protection to the cotton itself under conditions that insured low insurance, interest and storage rates. A system of receipts representing the stored cotton, carefully supervised in their issuance insured the holder of such receipt, whether owner or lender, that its representations were a true reproduction of the characteristics of the cotton bales it covered.

This Warehouse Company, located at Birmingham, and the system extending to the business of surrounding communities, has proven of value to the producer, the buyer, the lender, the transportation companies and those who invested in its securities.

This system enabled the Warehouse Company during the panic of 1907 to issue to its storers cotton script at 7 cents per pound, which script passed current with local clearing-house certificates.

A yearly recurring cause of trouble in the handling of our cotton crop is the rush with which it is sent to market; forced from the interior through the ports and to warehouses in Europe. This condition has become an established yearly burden, largely because proper physical protection was not offered to the cotton bales until finally landed in warehouses of American mills or warehouses at European storage points, and for the additional reason that the inadequate warehousing facilities and poor management made it impossible to secure at reasonable interest rates the necessary money to carry large stocks of cotton at warehouse points in the interior.

The larger part of the storage or carriage cost of cotton accrues at the time of its first handling, when it

has to be weighed, inspected and put in store. If low insurance and storage rates are possible on account of well-constructed warehouses, the monthly cost after the first runs on a very low basis. The minimum of handling cost is reached when cotton bears but one cost of inspection, and, having been once warehoused, is moved only when sent to the mill spindle.

If added to these advantages the warehousing system is such as to make the warehouse receipts absolute security and acceptable in all money markets of the world, cotton collected at these interior warehousing points will remain there for much longer periods than now and move out gradually as consumption drains temporary supplies at mill points.

The Warrant Warehouse here, in making a maximum storage rate of \$1 per bale for one year in warehouses carrying an annual insurance rate of 12 cents on the \$100 and negotiating loans on cotton thus stored by either producer, merchant or mill owner is encouraging, not a speculative holding of cotton, but the gradual marketing of the crop. The inspection of the bales as to weight and grade by experienced employees gives practical and absolute knowledge to the seller, buyer and lender of the value of the cotton stored.

This gradual marketing aids the transportation companies by spreading the cotton movement over a longer period, rather than as now congesting it into the three months of November, December and January, when the peak load of other traffic demands cars.

It enables the cotton mill, instead of building large warehouses at its plant, to draw its cotton gradually and as needed from supplies either owned by itself at the public warehouse or which it buys from time to time from other storers.

It gives to the producer an opportunity of carrying his product at a reasonable cost until he has an opportunity to find a spinner who is in need of the grade and character of cotton which he has produced, rather than forcing his cotton on the market at any price that happens to be offered on the day it is baled and ready for delivery.

My observation of many years, and experience with this warehousing proposition in the past seven, convinces me that a multiplication of such facilities throughout the South, combined and managed on practical and economic lines, would tremendously benefit every line of business interested in the producing, financing, forwarding and marketing of our cotton crop and would give sure and profitable returns upon invested funds.

AS THE SYSTEM HAS OPERATED IN SOUTH CAROLINA.

By T. B. STACKHOUSE, President Standard Warehouse Co., Columbia, S. C.

The Standard Warehouse Co. of this city was organized in 1905, with a paid-in capital stock of \$347,900, and since organization has operated warehouses for the storage of cotton at Columbia, Greenville, Anderson, Greenwood, Newberry and Orangeburg, all of South Carolina.

The company has warehoused more than 100,000 bales of cotton each year, issuing the owner its receipt, which is acceptable as collateral by banks in all of the money centers of this country at the very lowest prevailing rates of interest.

In the handling of about 1,000,000 bales of cotton there has not been a single loss of cotton, or of money advanced against the cotton. The banks located in the cotton States have not been able to finance any considerable portion of the cotton crop and at the same time finance the growing of another crop, and thus enable the farmer to distribute the sale of his cotton throughout the year, instead of forcing it on the market in about three months, as was done a few years ago.

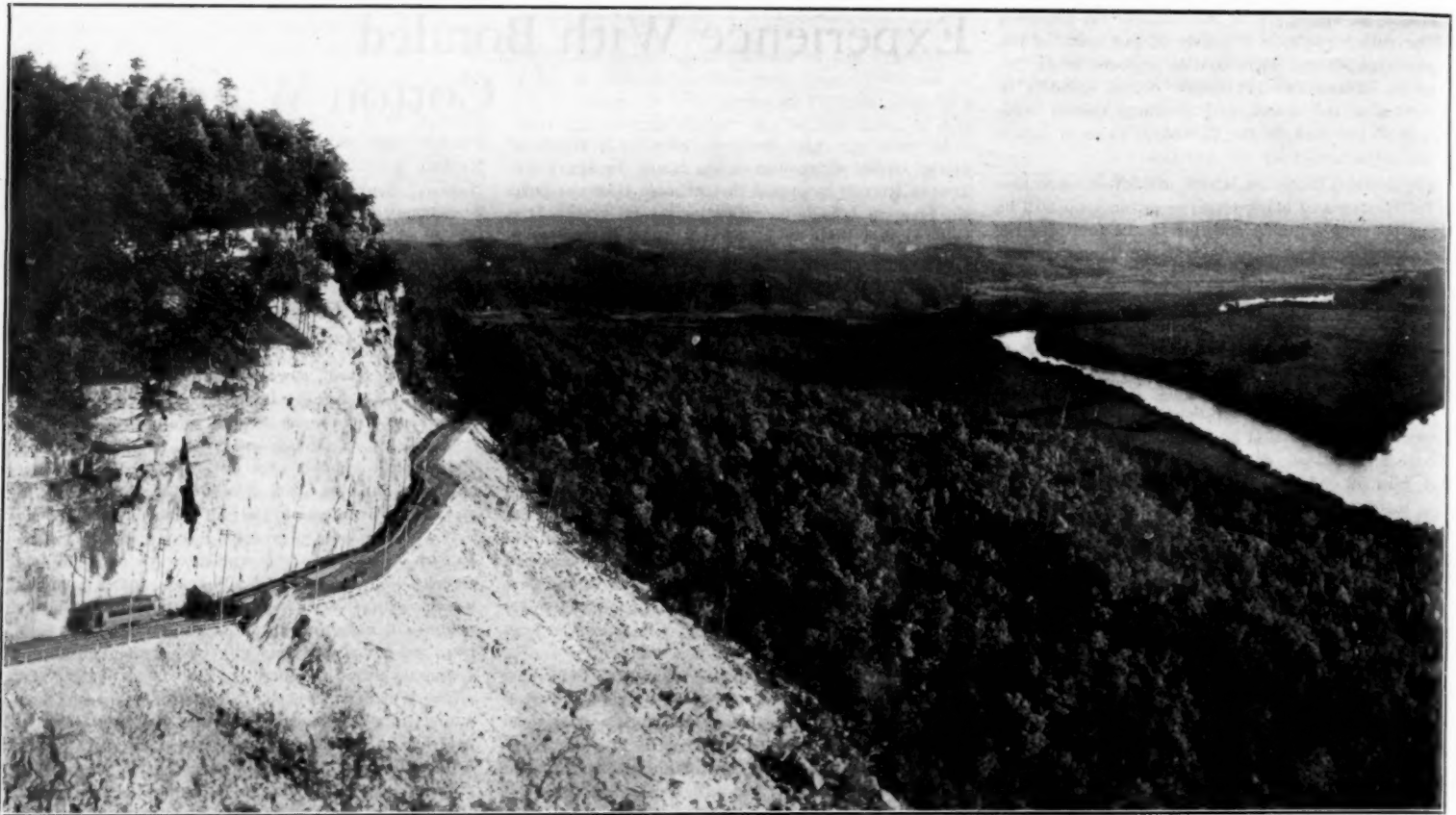
By storing the cotton with a strong warehouse company the grower, buyer and manufacturer are enabled to finance it with banks in all of the money centers,

thus securing the best interest rate, which relieves the local banks and enables them to furnish the money necessary to grow another crop.

The general adoption of such a warehousing plan by the cotton-producing States would, in my opinion, result in the grower securing better prices for his cotton and in insuring a more stable price, thus helping the buyer and manufacturer, as well as the grower.

Alabama Lime & Stone Co.

At Paint Rock, Ala., the Alabama Lime & Stone Co. will build a plant to manufacture agricultural lime-stone, hydrated and bulk lime, etc. A daily capacity of 40 tons of crushed stone and limestone, 600 barrels of lime and 15,000 bricks is proposed, and all the machinery will be purchased by H. M. Smith, secretary of the company, his offices being at Rome, Ga., and the company's general offices being at Chattanooga. Boilers, engines, crushers, screens, conveyors, compressors, drills, brick machinery, etc., will be needed.



BOULEVARD AND ELECTRIC LINE ROUNDING WALDENS RIDGE.

Mountain Electric Line and Boulevard

INTERESTING ENGINEERING PROBLEMS SOLVED IN CONSTRUCTION NEAR CHATTANOOGA.

Among the big pieces of construction in the South during the past two years has been that of the famous Signal Mountain Line, built by the Chattanooga Traction Co., and the Signal Mountain Boulevard, by the Chattanooga Estates Co., both of Chattanooga, Tenn. The development of Signal Mountain, better known as Waldens Ridge, had for more than 40 years been considered an impossibility, and only for the foresight of C. E. James, who 30 years ago saw the possibilities of a fashionable suburb of Chattanooga, this vast piece of property, with all its grandeur and scenery, would today be nothing more than a wilderness, the same as before it was ever opened up to the eyes of the public.

The boulevard was built first. Locating this road and securing a maximum grade of $3\frac{1}{2}$ per cent. up the side of Waldens Ridge was a fine piece of engineering. At James Point there was no way to get around this bluff with the road and car line. The only way possible to get to the top of Waldens Ridge was to excavate for more than a mile through the bluff perpendicular and 175 feet high. The boulevard is 36 feet wide, has a crown in the center of 12 inches. This places the gutter line 12 inches below the crown, with a catch-basin every 100 feet, with drainage pipe ranging from 24 to 36 inches to take care of the water flow. Every precaution has been taken to prevent damage being done by the heavy flow of water such as traverses those ravines down the side of the mountain.

The Signal Mountain Electric Line is $13\frac{1}{2}$ miles from the end of Walnut-street bridge, north of Tennessee River, to the Signal Mountain Inn, on top of the mountain. Locating and surveying this line from North Chattanooga to the foot of Waldens Ridge was nothing out of the ordinary methods of engineering, but locating and surveying this line up the side of Waldens Ridge, like that of the boulevard, was another feat in engineering. Although the top of this mountain has an elevation of 1800 feet, this road leaves the foot of the ridge on a $3\frac{1}{2}$ per cent. grade, and nowhere along the route, from the foot of the mountain to the top, does this grade exceed 5 per cent.

The survey and location was made and the road built with the safety of the public at heart. They worked on the theory that to build a line over which traffic could be handled with safety was one of the most important things to be considered. More than a year was required

to make the survey and location of car line and boulevard to their present terminus on top of the mountain. The surveying and locating, and even the road, could have been built with less expense by eliminating curves and making the grade heavier, but with more danger to the public. With this idea the company spared no expense in not only securing a good grade, but in building one among the best electric lines in the South.

Construction work on the boulevard was started April 1, 1912, and completed December 15 of the same year. Work on the car line was started September 1, 1912, and completed November 1, 1913.

In connection with the Signal Mountain Railroad, the company has already established a barge line at the upper point of Williams Island. A track has been extended from the main line at Williams Island Station to the river, and an incline has been graded down to low-water mark, the grading of which was done before the slackwater was allowed to back up from the lock and dam at Hales Bar, near Guild, Tenn., which is 25 miles below. On the banks of the river they have installed a 20-ton crane for the purpose of loading and unloading freight which will come by the way of river traffic. It is necessary to establish this barge line to handle the immense timber and develop coal and other minerals along both sides of the river. Prior to the completion of the lock and dam at Hales Bar this was an impossibility, due to the fact that no small craft could steam the water through the mountains. Nothing but one of the large river steamers could stem the tide. Now that the dam has been completed, the developments as mentioned in this paragraph can proceed without any difficulty whatever, as the necessary water for river traffic through the mountains is available the year round.

Power for the operation of the electric cars over the Chattanooga Traction Co.'s line is furnished by the Chattanooga & Tennessee River Power Co. from the lock and dam at Hales Bar. The company has erected a substation along the tracks of the electric line, near James Point, with necessary transmission wires, which come direct from Hales Bar and furnish power not only for the trolley cars, but for any other purpose where it is needed.

The management of the company includes C. E. James, president; Webster T. James, chief engineer and general manager; James E. Formey, engineer of con-

struction; J. A. Davies, auditor, and C. A. Comer, chief dispatcher. Among the stockholders and directors are Nicholas F. and James P. Brady, sons of Anthony N. Brady, and Chas. E. Eddy and brother, all of New York city. C. E. James, self-made man, promoter, capitalist and several times millionaire, who has fathered the enterprise, has spent and caused to be spent by Eastern capitalists more than \$12,000,000 in the vicinity of Chattanooga during the past eight years. Nine million dollars of this amount was spent in the construction of the lock and dam at Hales Bar, and which is owned by the Chattanooga & Tennessee River Power Co., of which Mr. James is president. He has opened the eyes of the nation by the development of Signal Mountain, and in doing so has made a wilderness blossom as a rose.

Oklahoma Engineers.

The transactions of the Oklahoma Society of Engineers have been published in tabloid form covering the meetings of the past seven years. The officers of the society are W. L. Benham, Oklahoma City, president; S. A. Joyner, Lawton; W. C. Burke, Oklahoma City, and Prof. J. H. Felgar, Norman, vice-presidents, and H. V. Hinckley, Oklahoma City, secretary-treasurer. The volume of 60 pages deals with articles by Prof. R. E. Chandler, Stillwater; Dr. C. N. Gould, Oklahoma City; W. L. Benham and H. V. Hinckley, Oklahoma City; B. S. Reeves, Guthrie; W. C. Burke, Oklahoma City; C. M. Lawrence, Holdenville; State Highway Engineer W. R. Goit; F. C. Hand, chief engineer Oklahoma Central Railway; Alfred Boyd and R. E. Chandler, Stillwater; E. D. Merry, R. E. Brownell, William Ribble, Oklahoma City; Frederick Biggin, Stillwater; Homer J. Wilkins and Warren S. Sherman, Oklahoma City; H. H. Hellen, Wagoner; State Highway Commissioner Sidney Suggs, Elmer E. Colby, Chickasha; Chas. Jablow and A. P. Little, Stillwater; B. F. Lewis, Enid, and others.

To Manufacture Frogs and Switches.

Frogs, switches and kindred appliances will be manufactured at Tuscaloosa by the Morrison Frogless Switch Co. of Birmingham. This plant will require the construction of a 250x100-foot steel and concrete building, for which bids will be opened on June 15, and machinery for which proposals will be considered on the same date. J. C. Morrison, company's secretary, 519 American Trust Building, Birmingham, Ala., will receive the propositions.

The Industrial Outlook in North Texas Oil Field

[Special Correspondence Manufacturers Record.]

Wichita Falls, Tex., March 28.

In addition to its remarkably rich gas field, one of the greatest in the United States, and having every indication of proving to be one of the longest lived, the North Texas oil field has been developed to a point where all doubts have vanished as to its importance, extent and richness. The big oil men of Pennsylvania, California, Texas and elsewhere are in the field, with entire confidence in the outcome, and some enthusiastic opinions are heard to the effect that this will develop into one of the greatest oil fields in the country. Superlatives are indulged in by even coldly calculating geologists who are surveying the field in the interest of prospectors, and so seasoned a writer as W. G. Long, staff correspondent of the *National Petroleum News*, who has had two years' intimate acquaintance with the field, declares "the North Texas oil field, which is substantially Wichita county, is one of the wonders of the oil world."

One of the most wonderful features of the field, as pointed out by Mr. Long in substantiation of his statement, is the longevity of the wells, as shown by their steadiness of production. Also the variety and number of producing sands, there being no less than seven distinct sands in the field which are producing oil, ranging in depth from 450 or less to more than 1800 feet.

Oil was discovered here three years ago, and the production has grown in volume each day since its discovery, until today there are some 1100 producing wells in Wichita and Clay counties, with a total production of from 30,000 to 35,000 barrels a day. As the price of North Texas oil was advanced to \$1.05 a barrel last fall, this shows a daily production in dollars of some \$33,000 on an average, or more than \$12,000,000 a year.

If not excitement, there is at least much interest on the part of owners of land, operators and prospectors, and there is great activity in the making of leases, outright sales and operations of drillers. The turning loose of cash money in the way of royalties is already making notable changes in the community. It is stated that at least 200 land owners—many of them heretofore poor and non-prosperous farmers—are basking in the affluence of an income ranging from a few dollars to thousands of dollars every day. No "Coal Oil Johnnies" of prodigality have developed so far, the beneficiaries mainly making use of their new wealth to the legitimate benefit of themselves and families. There are numerous cases where these fortunate ones have removed to town, bought themselves good homes and started in to give their children the benefits of the better school and church facilities which are thus afforded.

It is estimated that more than \$5,500,000 has been invested in construction work in the field. Some 225 rigs are in the field, with an average daily cost of operation of \$30 per rig, or \$6750 per day, which is not included in the payroll of the oil producers. During 1913 695 wells were completed; 444 were oil producers, 155 were dry holes and abandoned, and 6 were gas wells. There are 40 producing gas wells in the field, with an estimated production of 600,000,000 cubic feet per day. Gas is piped to Fort Worth, Dallas, Denison and some twenty other towns and cities in this territory, and the total value of the gas production exceeds that of the oil.

Natural gas is the foundation for a very considerable industrial development at Wichita Falls, and is relied on to stimulate a vastly greater industrial growth here. The Wichita Falls Motor Co. manufactures a very high-grade motor truck that sells all over this and foreign lands. It is seen by hundreds on the streets of San Francisco, is handled by an agency in Honolulu, and has been shipped to numerous West Indian and South American points. Ball Bros. have here one of their most important plants for the manufacture of the Mason fruit jar, and have recently bought the Texas Bottle Manufacturing Co., a hitherto separate concern making various kinds of bottles here. The Wichita Falls Window Glass Co. is an extensive manufacturer of all sizes of window glass. A pottery makes jugs and crockery, and there is a brick and tile factory. All of these plants have come here since the discovery of gas some seven years ago. Altogether there are 40 industries of various kinds, some of which, notably the very extensive Wichita Mill & Elevator Co., were located before the discovery of gas, but which are now users of that fuel. The capital invested in 32 of the 40 industries is given as \$2,214,500; number of hands employed, 1350; monthly

payroll, \$79,170; value of manufactured product, 1913, \$5,382,000. Recent industries are an oil well tool manufacturing plant and a canvas glove factory. An oil refinery is among the prospective new industries.

In connection with the oil industry a nitro-glycerine factory has recently been located here by the Illinois Torpedo Co. After shooting some of the wells with the high explosive quite remarkable results are reported, one well producing 100 barrels a day after shooting, whereas it had been good for only 500 barrels previously. Should results anything like this be obtained generally, the total field production, it can readily be seen, would be enormously increased.

There are four districts in the North Texas field, three in Wichita county—Electra, Burkburnett and Iowa Park—and the other, Petrolia, in Clay. At Iowa Park the wells are very shallow, 450 feet and less, and 44 wells show a production of only 500 barrels a day. The production at Petrolia and Burkburnett is about the same—slightly under 2000 barrels each per day—so that the great present producing field is the Electra. Out of a production of 30,000 barrels on a given day, Electra showed 26,000 barrels. The North Texas field altogether produced 9,400,000 barrels out of a total of 14,000,000 for all Texas in 1913.

Prospecting is proceeding continuously, and there is a belief, based on investigation and research, that the

area of production will be found to extend as far to the Southwest as McCulloch county, and possibly farther.

One of the most unique and interesting operators in the field is a California oil man named J. C. Yancey, who is making his headquarters at Wichita Falls. He has his own corps of geologists, and is giving the State a general geological survey. His expenditures on this work—salaries, etc.—are said to foot up more than \$90,000 per annum. This is more than the United States Government, the State of Texas or any or all of the other companies is spending on this work. Based on his California success, his contention is that oil can be found scientifically, and his operations are being carried out along these lines. He has been the means of bringing a large amount of new money into this field, and his work is attracting very widespread attention.

Among the leading operators in the field are the Producers' Oil Co., Texas and Eastern capital; J. M. Guffey Petroleum Co.; Corsicana Petroleum Co.; Red River Oil Co., Oklahoma and Texas capital; Forest Oil Co., Texas capital; W. C. McBride, Pennsylvania capital; Worth Oil Co., Pittsburgh capital; Five Rivers Oil Co., Alabama capital; Oktaha Oil Co., foreign capital; J. W. Dyson & Co., Robbins & Ramsey, W. W. Johnson, Head & Langford, Developers' Oil Co.; all local capital. Some of these companies are very successful and are steady dividend payers, the Developers' Company, for instance, having paid 10 per cent. per month during the past year. There are approximately 40 other companies financed locally which are operating in the field with more or less success, but, according to the figures of W. G. Long, those enumerated are responsible for about 90 per cent. of all the oil produced in Wichita and Clay counties. ALBERT PHENIX.

A New Railroad Into Brunswick

EXTENSION OF THE GEORGIA COAST & PIEDMONT GIVES A SEAPORT OUTLET TO A LARGE INTERIOR REGION.

With the establishment of train schedules recently on the Georgia Coast & Piedmont Railroad's extension, Brunswick, Ga., secured its fourth line of railway. The opening of this road into Brunswick was celebrated by the operation of a special train, under the auspices of the Board of Trade, which carried 200 of its leading business men up the line to its present western terminus, Collins, Ga., a distance of 100 miles, stops being made at each station en route for distributing trade literature, refreshments and inviting the people to come to Brunswick for a celebration. The social ties thus

handle to the ports from and to which most of its traffic moved.

Leaving Darien, the extension crosses the delta of the Altamaha, consisting of four rivers and three islands. Across two of the rivers steel drawbridges were built, while trestles about three miles in aggregate length were constructed for crossing the other two rivers and the islands. The road next traverses rice plantations for a mile and a half on a fill requiring 150,000 yards of earth to complete. From this point onward the work was light.



DARIEN RIVER DRAWBRIDGE AND GENERALS ISLAND TRESTLE.

formed are expected to result in close business relations for Brunswick in this territory, the residents thereof being cut off previously by the Altamaha River and the lack of a direct line.

The newly-constructed extension from Darien to Brunswick, 18.6 miles in length, was a big undertaking for an 82-mile road that previously ran from nowhere to nowhere, from a railroad point of view, and which from this fact had to deliver the large volume of tonnage that it originated, including the greater part of the revenue thereon, to its main line connections, to

At Brunswick the road has a franchise from the city authorities for a belt line to reach all the wholesale warehouses, and practically every industry and private wharf. Only part of this belt has been built so far, and some parallel tracks of the Southern Railway are being used temporarily. The company's freight station and combined passenger station and general office building are located in the exact center of the city and on a belt line of street cars. The company has secured 2000 feet of water front on the Government channel, which has a depth of water of 27 feet at mean low tide in the

Brunswick River, and this property runs back to Bay street, a depth of 600 feet. About 1500 feet of this water front is improved, and it is expected to also improve the remainder to take care of the Baltimore & Carolina Steamship Co., which contemplates extending its service to Brunswick.

It is learned that traffic arrangements have been completed with the Central of Georgia Railway, with the Wadley Southern division of which road the Georgia Coast & Piedmont connects at Collins, so that a new and shorter route is opened between Atlanta, Macon, Augusta and other principal cities of North Georgia and Brunswick. This, it is believed, should have a very important bearing on the growth of the port, with its live Board of Trade to make the most of the opportunity. Very convenient passenger schedules between Savannah and Brunswick have also been arranged in connection with the Atlantic Coast Line via Ludowici, and excursion rates from different towns to Brunswick have been made for every day.

The Georgia Coast & Piedmont Railroad has already begun reducing grades and filling in trestles on the old line between Collins and Darien, and it is expected that it will not be very long before the cut-off formed by this road between the Montgomery division and the Jacksonville division of the Seaboard will be utilized, with a saving of 12 hours in time on Montgomery-Jacksonville traffic of the latter system.

It is expected that with an improvement in the railroad bond market a westward extension of this new road will be made from a point 20 miles south of Collins to Lyons and Vidalia, to serve a section of Georgia along the Altamaha River which was settled for a generation before any railroads were built, when the Altamaha was the highway of commerce in these parts, and which is highly developed, but provided with transportation only by a boat line on the river. This new extension would connect at Vidalia with the Macon, Dublin & Savannah and the Georgia & Florida railways, both of which have a large tonnage, while a trackage arrangement over the Georgia Coast & Piedmont, would give them access to a seaport at Brunswick.

These improvements of the Georgia Coast & Piedmont Railroad are the work of A. de Sola Mendes of Brunswick, Ga., a young man who, with F. J. Lisman & Co., New York, has developed several short-line railroads in the South, and who quite recently has gone into municipal public utilities, being general manager of the Mutual Light & Water Co. and of the City & Suburban Railway Co. of Brunswick, developing in sundry directions these public utilities.

FOR A CHAIN OF CANNERIES.

Well Thought-Out Plan for the Ozark Fruit Belt Being Considered.

Bearing upon his plan for the establishment of a chain of fruit and vegetable canneries in the Ozark region of Arkansas and Missouri, William Nicholson of Kansas City, Mo., immigration agent of the Kansas City Southern Railway, writes to the MANUFACTURERS RECORD:

"I was called to Fort Smith to interview a gentleman from Indiana who is in the canning business there, and who sold considerable canned goods to Arkansas merchants, as it was his idea that he might can on the ground a great many of the products which he was now shipping there, and thus be able to save the freight and also cover the territory which he could not reach from his home cannery. He discovered a very much larger field than he had anticipated, and will undoubtedly establish a large-sized canning plant at Fort Smith in time to take care of this year's products.

"I have for some time been working on plans as outlined in the interview, because we are constantly in receipt of information from all points in the South indicating the need for a comprehensive system of canneries to take care of such of the products raised as are perhaps a little too ripe for shipping. This Ozark country, also Western Louisiana, but the immediate work is to take care of the Ozark region, is practically a country of small homes, where the principal crops raised are fruits and vegetables. There are in Western Arkansas probably 20 small canning factories which operate independently, both as to canning and disposing of their products. This is not adequate for the territory, as three or four times that number of factories could be made profitable if operated under one management, both in the method of growing and canning the various products, and the marketing of same. There is a very

large quantity of fruits, and also of fresh vegetables, raised in the Ozark region and marketed in the large cities—St. Louis, Chicago and Kansas City—and I might also say New York city and other large cities in the East, but there is a lack of market for the products that get too ripe on the vines for shipping, and while the individual growers endeavor to save such of these as they can for their home and local use, there is undoubtedly a very large waste.

"My plan is to organize all these present factories and have established all under the management of some one successful person, who shall be elected by the various parties interested, thus having the goods packed under the same formula and marketed under the same single management. I figure that it is necessary, in order to make these various canneries successful, to have a number of farmers in the vicinity interested financially in the canning company, so that they will have more than a local pride and interest in the success of the plant. The work for the next 12 months will undoubtedly be only publicity work and getting the people interested, and in this I have enlisted the services of Mr. E. N. Hopkins, secretary of the Arkansas State Horticultural Society, and editor of the *Ozark Fruit and Farms*, Fort Smith, Ark.; also Mr. Bert Johnson, president of the same organization, and who is proprietor and manager of one of the largest peach orchards in the world, having about 3000 acres at Highland, Ark., also a very large canning factory operated in connection therewith. Mr. Johnson is at the present time, we think, an ideal man to head this enterprise, and we feel sure our plans will mature along the lines above stated.

"We realize that canned goods are sold largely by sample, and that the brand does not do all the selling. At the same time we know that an established brand of goods does command the market, and it is our intention to have this Ozark brand convey to the people who use it once the knowledge that only first-class goods will be put up in that brand.

"It is well known that Baltimore is the center of the canning industry, and Baltimore canned goods are sold all through the South. While the South raises, it does not take care of sufficient products of this kind to not only supply itself, but all the rest of the country, which the freight rates will allow it to reach advantageously. The South has always been a one-crop country. In some places cotton, in others sugar-cane or rice, and they have not tried heretofore to diversify farming as it is hoped will be the rule more and more hereafter.

"While it is possible that the larger portion of the capital necessary will be supplied by the local interests, at the same time there is a splendid business field for some one who thoroughly understands the business and with sufficient capital to carry the enterprise through successfully, to take hold of this matter now and carry it through to a successful termination. This is a product that is not affected by the tariff or financial disturbances. These are goods that are in every-day use on every table in the country, and there is practically no limit to the demand.

"We are working along these lines, and will welcome any legitimate assistance that may come to our hands, although we feel sure of the ultimate success of the matter."

South in Bauxite Production.

The demand for aluminum in the United States in 1913 showed a steady and rapid growth, according to W. C. Phalen of the United States Geological Survey. This resulted in a marked increase in the production of bauxite or aluminum ore, the output of which, according to final survey figures, was 210,241 long tons, valued at \$997,698, an increase of 50,376 long tons, or 31.5 per cent., and \$228,766, or 29.8 per cent., respectively, over the figures for 1912. This growth of the aluminum industry has been marked by healthy expansions and improvements in existing plants, the commencement of work at a new plant in the spring of 1914, and progress in the work on new power sites where largely increased hydro-electric power for use in the reduction of the metal will be in operation during the next few years.

The States which produced bauxite were, as usual, Alabama, Arkansas, Georgia and Tennessee. Arkansas led in 1913, its output exceeding that of the previous year. The ore mined in that State came from both Saline and Pulaski counties. The production in Tennessee increased substantially. The ore mined in this State came from the Mission Ridge deposits near Chattanooga, and from the new mine of the National Bauxite

Co. near Keensburg, Carter county. The production in both Georgia and Alabama declined. In the former State the decline was slight, but in Alabama it was considerable. In Georgia ore was mined near Hall's Station, Bartow county; near Hermitage, Floyd county, and near McIntyre, Wilkinson county. Considerable prospecting and development work was done in the vicinity of Rome, Floyd county. In Alabama ore came from the vicinity of Rock Run, Cherokee county.

The average price of bauxite per long ton at the mine for 1913 was \$4.75, which differed by only a few cents from the prices recorded for the three previous years. There was more aluminum consumed in the United States in 1913 than in 1912, but the figures showing this consumption cannot be published at the present time, as the important figures are not yet available.

American Cotton Oil Co.

President R. F. Munro of the American Cotton Oil Co., New York, announces that his company has consummated the plans of the management for a more simple organization and more effective conduct of the company's increasing business. This activity includes ginning cotton and crushing cottonseed in the South, manufacturing fertilizer from crude oil by-products, operating large cotton-oil refineries at St. Louis, Guttenberg, Cincinnati, Providence, etc.; manufacturing soaps, washing powders, etc., and the world-wide exportation of these products. Hereafter all the cotton gins, cotton-oil mills and fertilizer factories will be conducted by the Union Seed & Fertilizer Co., known to the trade for many years as the Union Oil Co. This new Union corporation was chartered last week with a capital stock of \$8,750,000, and its officers are: R. F. Munro, president; F. Bosse, vice-president and treasurer; C. O. Phillips, secretary. All the refineries will be owned by the American Cotton Oil Co., exclusively refining and selling cottonseed oil. The N. K. Fairbank Company will engage exclusively in the manufacture of cottolene, lard compounds, soaps, washing powders, etc., for household consumption.

Transatlantic Exports from New Orleans.

In 1913, according to the annual report of the Board of Trade of that city, H. S. Herring, secretary-treasurer, merchandise exported from New Orleans to transatlantic ports went to Liverpool, London, Glasgow, Manchester, Belfast, Dublin, Hull, Birkenhead, Avonmouth, Portland, Swansea, Barrow, Southerland and Sheerness, in the United Kingdom; Hamburg, Antwerp, Havre, Dunkirk, Rotterdam, Bremen, Bordeaux, Amsterdam, Flushing, Bremerhaven, Stettin, in Northern Europe; Marseilles, Genoa, Venice, Bari, Sette, La Pallice, Leghorn, Naples, Trieste, Cagliari, Messina, Barcelona, Lisbon, Alicante, Almeria, Oporto, Callon, Cadiz, Campana, Valencia, Malaga, Maderia, Catania, Tarragona, Gothenburg, Aarhus, Callendborg, Odense, Christiana, Horsens, Malmo, Emden, Copenhagen, Valla, Aalborg, Stavanger, Naskov, Carlshamm, Helsingborg, Bergen, Savona, Ebsjerg and Algiers.

A Rapid Railway Location Survey.

Charles Lyon Wood, a civil engineer of Columbus, Miss., referring to a recent item in the MANUFACTURERS RECORD dealing with a record day's run in a preliminary railway survey, writes:

"The writer once on location survey ran five and three-quarters miles in one day, two miles of which were through timber, three-quarters of a mile being through a very dense growth in a creek bottom. Every tree was cut off the line, two curves were run in with 50-foot chords, and intersection was made with an existing railway."

Seeking Location for Manufactory.

Southern development organizations endeavoring to secure industrial enterprises for establishment in their territory will be interested in a letter from the Baldwin Standing Grain Thresher Co. of Nickerson, Kans., which writes to the MANUFACTURERS RECORD: "We have decided to locate farther east, and are desirous of receiving information concerning a location suitable for our purpose."

The Power of Ocoee

PHASES OF HYDRO-ELECTRIC DEVELOPMENT OF THE TENNESSEE POWER COMPANY.

The United States Department of Commerce, through the bureau of the census, has just made public statistics covering central electric light and power stations in Tennessee, which show how remarkable was the development of electrical energy in that State during the decade from 1902 to 1912, inclusive. One feature of the Government figures which commands attention is the remarkable increase during the decade in hydro-electric developments. In 1902 the figures show there were in operation in Tennessee eight water-wheels, with

It is natural that industrial development should follow the growth of power distribution facilities. Tennessee has forged ahead, industrially, at a pace which has ranked it as one of the foremost industrial States in the South. And the principal factor in bringing about this development has been the remarkable growth of electrical energy distribution through the development of water-power resources.

At the beginning of the transmission of power by electricity for commercial use, the immediate result be-

Co. has just begun the distribution of energy over a distance of 70 miles from its Ocoee River development. The Aluminum Company will use approximately 20,000 horse-power annually.

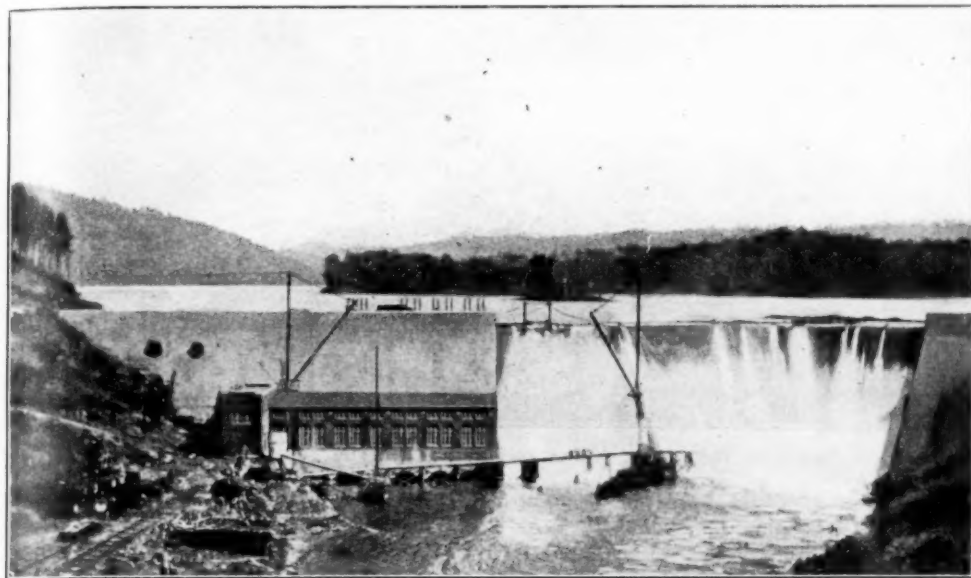
It is interesting to note the history of the development of the Ocoee River as a producer of electrical energy. Perhaps it had better be told by M. S. Hopkins, vice-president of the Tennessee Power Co., which put through the two developments now in operation.

"Several years ago," said Mr. Hopkins, "I received a telegram to join a party of engineers at Parksville, Tenn., and report upon the feasibility of developing the power of the Ocoee River from a point near Ducktown to Parksville, Tenn. We left the railroad at Cleveland, Tenn., and after driving 16 miles through the rain and mud, we arrived at Parksville, which consisted of an old mill, a country store, postoffice and three or four houses. There was evidence, however, on every side of this having once been a prosperous community.

"This preliminary examination resulted in the taking of an option on the property and the placing of some 30 civil engineers in the field to ascertain lands which would be flooded and to establish accurate elevations throughout from Parksville to Ducktown, to locate property lines and determine the flow of the stream. Drillers were put to work with core drills to explore the rock formation in the gorge near Sugar Loaf Mountain. The result of the drilling indicated principally quartzite formation, with some sandstone, which appeared satisfactory for foundation of a dam.

"The Ocoee River rises in the Appalachian Mountains at an elevation of approximately 2500 feet above sea level, and drains an area of somewhat in excess of 600 square miles above Parksville, Tenn. It was proposed to purchase the flowage rights and adjacent property from a point near Ducktown to a point below Parksville, a distance by river of approximately 26 miles, the river having a fall of 710 feet between these points. It was proposed to utilize this fall in two developments, the first by the erection of a concrete dam with spillway 110 feet above mean low water at Parksville, the second by building a diverting dam across the stream approximately 18 miles above Parksville and conveying the water through tunnel, flume and penstock to a power-house to be located approximately seven miles above Parksville and on the banks of Baker Creek, a very short distance above the level of back water from the lower dam. This would give a working head of 500 feet on the turbines in the Baker Creek power-house.

"The average flow of the stream for the past 10 years, if used at 110 feet head at Parksville, will deliver approximately 77,000,000 kilowatt hours, or a little over 102,000,000 horse-power hours per annum. This energy



DEVELOPMENT NO. 1. DAM AND POWER-HOUSE, OCOEE RIVER.

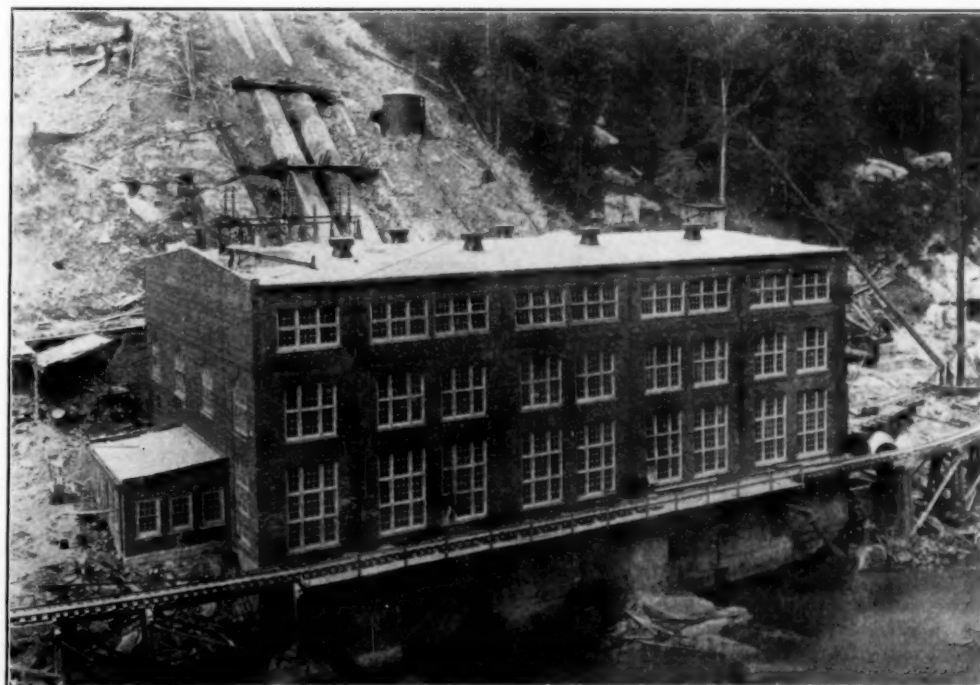
a combined capacity of 619 horse-power. In 1912 the number of wheels operated had increased to 32, with a rated capacity of 27,750 horse-power, an actual gain of 4383 per cent. The total output of hydro-electric and steam stations in 1902 was 24,472,632 K. W. H. In 1912 it had grown to 75,544,893 K. W. H., an increase of approximately 209 per cent. Total income of all plants in 1902 was \$909,383, compared with \$3,820,963 in 1912, an increase of 292 per cent. Horse-power development of steam and water-power plant in 1902 was 19,003, as against 68,904 in 1912, a gain of 263 per cent.

An indication of the possibilities of water-power development in the South, in which Tennessee is sharing notably, is apparent in a recent news item in the New England newspapers in which the fear was expressed that the great textile manufacturing industries Down East would eventually transfer their operations to the South, where, it was pointed out, there can now be developed enough energy to operate the mills at the very sources of supply of the principal raw material which enters into textile manufacturing—cotton.

Perhaps one of the best examples in the South of this remarkable development is the Ocoee River, in Eastern Tennessee. Less than five years ago this stream was "harnessed" by only one development, an old mill at Parksville, where it was the custom of many years to grind flour. Today this stream boasts of two gigantic developments which electrical experts have declared represent possibly the highest type construction to be found anywhere in the country. Construction of a third development is now under consideration.

The Tennessee Power Co., which operates these developments, today generates on the Ocoee River approximately 47,000 horse-power of electrical energy from its water-powers and 40,000 horse-power from its steam stations. In addition, it has water-power resources which can be developed as required, amounting to about 113,000 horse-power. Its transmission lines from the Ocoee River developments tap the best settled and most productive districts in Tennessee, and connect with Chattanooga, Nashville, Knoxville, Cleveland, Tenn., and various towns in Eastern Tennessee, to which it supplies electrical energy in the shape of light and power to municipalities, public utilities corporations and industrial establishments. Connection is made at the Georgia-Tennessee State line with Rome, Ga.

ing the broadening of the possibilities for utilization of water-power in American streams, electricity was used for distribution of power for short distances only, but long distance transmission over high tension lines has shown such a remarkable development in the last few years that each large installation of water-power has apparently tried to surpass the other in distance of transmission. Now 200 miles is not considered an un-



POWER-HOUSE AT DEVELOPMENT NO. 2, OCOEE RIVER.

usual distance for the transmission of electrical power. Electricity for commercial use in industrial plants and to operate public utilities is being distributed, in one instance, from the Ocoee River to Nashville, Tenn., a distance of 164 miles.

The Aluminum Company of America has built a large plant at Maryville, Tenn., to which the Tennessee Power

would be the equivalent to a little over 34,000 horse-power if used at the rate of 10 hours per day and 300 days in the year. The flow of the stream for the average year when used under 500 feet head at Baker Creek power-house will deliver approximately 346,000,000 kilowatt hours, or a little over 460,000,000 horse-power hours per annum. This energy would be the equivalent



DIVERTING DAM AT HEAD OF FLUME OF TENNESSEE POWER CO. IN OCOEE RIVER.

to a rate of use of 153,000 horse-power for 10 hours per day and 300 days in the year.

"Work on the camp and construction plant was commenced. The old mill was moved back and used as a commissary or store. Boarding-houses, dining-room, office building, engineers' houses, foremen's houses, bank-houses, water supply, sewerage system were rapidly completed.

"Construction of six miles of railroad from Ocoee Station, on the Louisville & Nashville Railroad, to Parkville, was started immediately. This six miles of road was completed in approximately 70 days, including taking the deeds for right of way, survey, grading and laying of rail. The machine shop, stables, cement-house, toolhouses, concrete mixing plant, all went forward together. In two months from the date work was given actual work on the dam was ready to commence.

"The dam is what is known as gravity type, of cyclopean concrete, with spillway 110 feet above mean low water level. The non-overflow portion of the dam, below which power-house is located, is 130 feet above bed-rock. Length of dam along the crest is 850 feet. It required:

"100,000 cubic yards of concrete.

"550,000 bags of cement.

"40,000 cubic yards of earth excavation.

"20,000 cubic yards of rock excavation.

"Weight of concrete in dam, 52,000,000 pounds.

"Structural steel, 500,000 pounds.

"Hydro-electric equipment, 1,700,000 pounds.

"Total of entire structure, 54,200,000 pounds.

"The power-house is located below and made a part of the non-overflow section of the dam.

"Concrete penstocks about 80 feet in length lying within the dam take the water through intake gates and racks through the dam to the wheel chambers. The main unit wheel chambers are located within the toe of the dam, and are built of solid concrete, with cast-iron bulkheads closing the opening into observation tunnel in the dam and opening into power-house. The main unit draft or discharge tubes are made of concrete, discharging into the tailrace under the power-house. Hydro-electric machinery installed as follows:

"Four main units, each containing one pair of 39-foot special wicket gate water turbines, mounted on a horizontal shaft, which are direct connected to 3750-kilowatt 2300-volt 60-cycle alternating-current generators, having an overload capacity of 25 per cent.

"Four Lombard water-wheel governors, one for each of the four main units. These governors are operated by oil pressure and provided with special devices to prevent excess speed or to close gates in case of trouble of any kind.

"Two Woodward mechanical governors are provided to govern each exciter unit.

"Two induction alternating-current motors are also direct connected to exciter units, their purpose being to insure reliability in excitation current and regulation.

"In addition to the special system for governing the speed of both main units and exciters, what is known as Tirrill regulators are provided for governing the voltage of the machine. The main units are guaranteed to develop 5400 horse-power each when operated under a total working head of 96 feet and a draft head of not less than 10 feet, and at a speed of 360 revolutions per minute.

"The pond above the dam regulates the flow of the stream, and during periods of low water will be drawn down to the Government elevation of 810 feet, or 90 feet above tailwater. Maximum head when operating under 110 feet is guaranteed to deliver to the shaft of the generators 83.4 per cent. of the total energy in the water. This is interesting to note in connection with the wheels in the old mills, which were of the early turbine type of low head wheel and gave from 45 to 50 per cent. of the energy of the water.

"Provision is made in the present structure for the addition of another unit in the power-house as large as 10,000 horse-power. Two large openings were left in the dam, so that a secondary power-house of 10,000 horse-power can be built below the present power-house.

"The generation and distribution of power has been paid out on a unit basis. Each main generator has its separate switchboard, panels and step-up transformers. These transformers raise the voltage from 2300 to 66,000, and are installed in the building just adjacent to the power-house. A cross-connected bus was installed, so that in case of trouble any transformer can be transferred and used in connection with other main generating units. All main generator units can be operated together in multiple, or all main units with the separate transformers can be operated independently on separate transmission lines, of which there are four. Two were constructed paralleling each other to a point near Cleveland, Tenn., one branching north along the line of the Southern Railway to Knoxville, and the other branching south to Rome, Ga. A switching station was placed at the point these lines separate, from which a line interconnecting with the two leads into Chattanooga."

So much for the Parkville development. The power-house at Baker Creek is known as development No. 2. It is at this development that energy is being developed for distribution to the plant of the Aluminum Company of America at Maryville, Tenn. There are installed in it two 7500 K. V. A. generators, 80 per cent. P. F., 360 R. P. M., three-phase 2300 volts, with direct-connected

exciters. There are also two 7500 K. V. A. three-phase water-cooled transformers, 2300 volts low tension and 66,000 volts high tension, delta connected on low tension and star connected on high tension. The hydraulic machinery at development No. 2 consists of two I. P. Morris Company horizontal turbines, each consisting of one horizontal double runner single flume unit with tube draft, and will develop 10,000 horse-power at 250 feet head and 360 R. P. M. Each unit is provided with a breaking plate as a safeguard against excessive rise of pressure in the penstocks. There are also two 45,000 feet Lombard governors.

Construction of the two developments was done by J. G. White & Co. under the direct supervision of the E. W. Clark & Co. Management Corporation. The Westinghouse Electric & Manufacturing Co. installed the equipment at Parkville and the General Electric Co. equipped development No. 2.

The high tension transmission lines of the Tennessee Power Co., leading from the Ocoee River developments, cover a distance of approximately 436 miles and serve a combined population estimated at about 335,000. Special steel construction has been used wherever the lines cross railroads and rivers, or where, for other reasons, special strength is needed. On the Knoxville circuit the Tennessee River, which is navigable at that point, is crossed by means of an 1800-foot span, supported by steel towers 125 feet in height.

The Tennessee Power Co. has acquired also the output of the steam-power stations in Knoxville, Cleveland, Chattanooga and Nashville, Tenn., and Rome, Ga., together with steam plants in small intervening towns. These plants are connected through substations so as to supply energy to any point on the company's system. They can also be run parallel with the water-power plant and carry any proportional part of the load. This combination of steam and water-power operation insures continuity of service and enables the steam units at all times to be run at their greatest efficiency. The operation of the Tennessee Power Co. is under the direct management of E. W. Clark & Co. of Philadelphia and Hadenpyl, Hardy & Co. of New York.

National Commissary Managers.

In advance of the fifth annual convention of the National Commissary Managers' Association at Louisville, Ky., August 18-20, Secretary-Treasurer Trady D. Luccock of Chicago has issued the semi-annual membership directory, showing an active membership in 33 States and an equally widely distributed associate membership.

Old Dominion Company Improvements.

The Old Dominion Iron & Nail Works Co., Belle Isle, Richmond, Va., is completing the development of its Belle Isle water-power to the extent of 3000 horsepower, building power-house of reinforced concrete and installing equipment, at a cost of about \$50,000. It is also rearranging the location of its rolling mills with a view to operation by electric motors, direct water-power having heretofore been used. About \$100,000 will be the entire expenditure for these improvements, and the company hopes to have the work completed by next summer.

The electrical motors for driving these rolling mills have been purchased from the Westinghouse Manufacturing Co., Pittsburgh, Pa.

Valk & Murdoch Company.

The Valk & Murdoch Company, Charleston, S. C., which recently incorporated, has organized to continue the Valk & Murdoch Iron Works and will remove this plant to a new location on Cooper River. It is capitalized at \$300,000 (half stock and half bonds), and its new plant will include a machine shop, boiler shop of iron frame construction, foundry of brick construction, storehouse, marine railway, wharf and crane. Contract for erecting buildings has been awarded to the Charleston Engineering & Contracting Co. This plant will be confined largely to marine repairs and similar work. The site is 625x600 feet. Charles R. Valk is president and J. Don Smith is vice-president.

St. Francis Levee District.

St. Francis Levee Board, O. N. Killough, president, Marion, Ark., is proceeding with its plans for extensive improvements heretofore outlined, and on April 20 will open sealed proposals for about 4,000,000 cubic yards of levee construction. B. G. Covington, Memphis, Tenn., is the chief engineer, and will furnish information to prospective bidders. On April 10 the board will open bids for the \$1,165,000 bonds which have been authorized.

Steamship Terminals for Savannah.

Plans and specifications for the construction of steamship terminals at Savannah for the Ocean Steamship Co. of New York are being prepared by J. G. Basinger of New York, and it is rumored that approximately \$1,000,000 will be the expenditure for these facilities. Concrete substructure and steel superstructure, with accompanying construction to make the terminals as nearly fireproof as possible, have been decided upon.

Virginia.

In the series of State pamphlets which M. V. Richards issues as a part of his campaign for Southern development as the land and industrial agent of the Southern Railway "Virginia" has just appeared. It is a splendid exposition in condensed form of the very rich resources and opportunities of the Old Dominion, and carries at the top of every page a beautiful half-tone illustration.

To Build Portland Cement Plant.

At a cost of approximately \$1,000,000, the Iola (Kans.) Portland Cement Co., which recently reorganized, will build a plant with a daily capacity of 2000 barrels of Portland cement at Kansas City. This plant will utilize materials from Dietz Hill, varying in height from 100 to 225 feet, and is expected to be complete by January. It will be located on a 26-acre site.

The Norfolk-Virginia Steamboat Co., according to a report from Norfolk, has established a line between that place and Elizabeth City, N. C., via the Dismal Swamp Canal. There will be three trips each way weekly.

The Chamber of Commerce of Sweetwater, Tex., Ben Anthony, secretary, is circulating an illustrated pamphlet describing the opportunities of the city and its surroundings.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

Bonds Voted.

Apalachicola, Fla.—Franklin county voted \$20,000 road bonds.

Mundy, Tex.—City will issue \$10,000 bonds for street improvements.

Port Tampa, Fla.—City voted \$17,000 bonds for paving, etc.

Trenton, Ga.—Dade county voted \$60,000 bonds to construct main thoroughfare.

Bonds to Be Voted.

Cameron, Tex.—Milan County Road District No. 7 will vote on \$65,000 bonds for road construction.

Corpus Christi, Tex.—City will vote April 20 on \$50,000 bonds for street paving.

Greenville, Tex.—Hunt County Precinct No. 4 will vote April 11 on \$200,000 road bonds.

Macon, Ga.—Bibb county will vote on \$100,000 paving and sewer bonds.

Rockwall, Tex.—Rockwall county will vote on \$200,000 road bonds.

Contracts Awarded.

Austin, Tex.—City awarded \$7400 paving contract.

Breaux Bridge, La.—City awarded \$22,000 contract for cement walks.

Fort Worth, Tex.—Tarrant county awarded \$3155.65 contract to construct road.

Germantown, N. C.—Meadows township of Stokes county awarded \$20,000 contract to construct roads.

Houston, Tex.—City awarded \$130,000 paving contracts.

Knoxville, Tenn.—Knox county awarded \$5000 contract to repair Sevierville pike.

Luverne, Ala.—Crenshaw county awarded \$10,542 contract to grade, drain and surface with sand-clay about eight miles of road.

New Orleans, La.—State awarded \$6000 contract to reconstruct 6½ miles of highway.

Palmer, Tex.—City awarded \$8000 paving contract.

Port Lavaca, Tex.—Calhoun county awarded contract for 2½ miles of road at \$130 per mile.

Richmond, Va.—City awarded contracts at \$177,000 for street paving.

Contracts to Be Awarded.

Baltimore, Md.—State receives bids until April 14 to build seven sections of State highway, amounting to 33.28 miles.

Baltimore, Md.—City receives bids until April 9 for 122,064 square yards sheet asphalt and 2000 square yards vitrified brick.

Cambridge, Md.—Dorchester county received bids until March 31 to build 2.25 miles of State-aid highway.

Columbia, S. C.—Richland county will repair five miles of highway.

Decatur, Miss.—District No. 4 of Newton county will expend \$125,000 to \$200,000 for road construction.

Fairmont, W. Va.—Marion county receives bids until April 14 to construct about 23 miles of roads and streets in Fairmont district.

Jacksonville, Fla.—Duval county receives bids April 9 to construct 5300 feet of brick or cement highway.

Lake Charles, La.—Calcasieu parish receives bids until April 27 to improve about 43 miles of highways.

Little Rock, Ark.—City receives bids until April 3 to grade, curb and pave with water-bound macadam, tarvia macadam or concrete about 4500 square yards.

Macon, Ga.—City will expend \$5000 for street paving.

Marietta, Okla.—City will pave, grade, macadamize, curb and otherwise improve 16 blocks.

Oklona, Miss.—Chickasaw county receives bids until April 10 to grade and gravel about 9½ miles of road.

Shelbyville, Ky.—Shelby county has \$40,000 available for maintaining pikes and building 3¾ additional miles.

Tampa, Fla.—City opens bids April 7 to construct more than 1½ miles brick paving, total of 28,255 yards.

Washington, D. C.—City has \$365,000 available for street improvements.

Whitesburg, Ky.—Consolidation Coal Co. will construct 20 miles of model roadway.

Bristol-to-Norfolk Highway.

Chamber of Commerce,

Lynchburg, Va., March 27.

Editor Manufacturers Record:

The Bristol-to-Norfolk Highway Association has been formed here, with 16 counties represented, the object being to work for an east and west cross-State modern highway. The officers are J. J. Scott, Bedford City, president; W. T. Corwith, Lynchburg, secretary-treasurer; Henry Roberts, Bristol; A. J. Huff, Washington county; John P. Buchanan, Smyth county; E. Lee Trinkle, Wythe county; H. L. Trolinger, Pulaski county; Dr. S. W. Fletcher, Montgomery county; Judge Geo. E. Cassel, Radford; Jos. A. Turner, Roanoke county; J. H. Marsteller, Roanoke City; John T. McKinney, Campbell county; Ernest Williams, Lynchburg; S. L. Ferguson, Appomattox county; J. L. Hart, Prince Edward county; Jos. M. Hurt, Nottaway county; E. S. Hobbs, Dinwiddie county, and C. P. Shaw, Norfolk City, vice-presidents.

The plan of the association is for the construction of a modern highway from Bristol to Norfolk, the vice-presidents being charged with the duty of promoting and securing the construction of it through their respective counties and cities. They will have authority to appoint executive committeemen for their counties and cities as they may deem proper. That the officers of the association are to have the highway located and surveyed (where not already constructed or located and surveyed) as soon as practicable under the supervision of the State Highway Commissioner of Virginia, and have proper estimates made of the cost of construction through the counties, districts and cities.

Coal Terminals at Charleston.

The Holston Corporation (Carolina, Clinchfield & Ohio Railway), Ward Crosby, chief engineer, Johnson City, Tenn., has requested bids on 600,000 yards of dredging at Charleston, S. C., but has not closed contract. It is understood this is preparatory to beginning the construction of the company's Charleston coal terminals, heretofore announced as to include storage bins for 650,000 tons of coal, machinery for loading and unloading vessels, and other equipment. The plan is not far enough advanced at present to state the latest decision as to details.

India's Cotton Crop.

India raised in the season of 1913-14 a record crop of 5,201,000 bales of 400 pounds each on 24,595,000 acres, an average of a little more than one-fifth of a bale to the acre. The crop was 591,000 bales greater than that of the preceding season, 4,610,000 bales, raised on 22,028,000 acres.



THE RIVIERA, BALTIMORE, MD.

Apartment-house to be erected for Lyon Realty Co.; 129.10x115.8 feet; 6 stories; fireproof; slag or asbestos roof; steam heat; gas and electric lights; 2 electric elevators; architect, John Freund, Jr.; consulting engineer Henry Adams, both of Baltimore; construction by owner, superintended by J. F. Kunkel, Baltimore, who has contract for carpentry work; other contracts include: Terra-cotta, Hudson Cement & Supply Co.; reinforced concrete floor and structural steel work, Standard Concrete Steel Co.; bricklaying, Charles F. Berndt, all of Baltimore.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

SOUTHERN'S DOUBLE TRACK.

President Fairfax Harrison Will Concentrate Upon Completing Main Line.

[Special Correspondence Manufacturers Record.]

The Commercial Association,

Danville, Va., March 30.

That his ambition as chief executive of the Southern Railway is to double-track its main line from Washington to Atlanta was the statement made by President Fairfax Harrison in an address before the Commercial Association of Danville, Va., last Friday night.

Thirty-five per cent. of the route is now completed, that much, approximately, having been finished when the panic of 1907-1908 stopped the work inaugurated by the late President Sampel Spencer. President Harrison states that his plans for completing the double track have already been prepared, and that estimates for the improvement place it at \$20,000,000. In beginning the new work, which will commence within the next 60 or 90 days, he will have the roadway department operating on a comparatively new plan. He will personally designate work to be accomplished within a year, and will carry out this program from year to year until the new line is finished.

That the engineering and roadway departments have an immense task on their hands is unquestioned. President Harrison states that in certain sections of North Georgia the second track will cost \$150,000 a mile. In the vicinity of Danville some problems are to be met, and while the work of reducing grades and making room for the second track will not present any engineering difficulties, the construction forces will have months of work owing to the topography of the land and the depth of cuts already in use.

Across the Dan River will be constructed a double-track concrete arch bridge approximately 650 feet in length and 25 feet above the level of the river at low water. The new structure will supplant the old steel single-track bridge for passenger and freight service, but the old bridge may be retained for the use of the local yards, two separate yards being operated, one on each side of the river. Plans for this new work are completed.

President Harrison states that actual construction on the bridge will in all probability commence within the next 90 days, as the improvement is greatly needed at this point, delays to trains being frequent on account of excessive traffic in this district, the Richmond, Washington and Norfolk divisions intersecting here.

DUDLEY V. HADDOCK, Secretary.

EXTENSIVE WORK AT MEMPHIS.

Several Railroad Systems and the Municipality Have Much Construction.

The Johnson-White Company, engineers and contractors, Seimitar Building, Memphis, Tenn., which was awarded practically all of the sewer and drain work in connection with the recent railroad improvements there, says:

"We are just ready to complete our Illinois Central Railroad work, which consists of seven miles of sewers at the company's new Nonconah yards; also about four miles of deep storm sewer work in the heart of the city, where their improvements have been very large. The Illinois Central has probably made the most extensive local improvements. It has elevated its tracks for about half a mile, which has done away with all grade crossings in the downtown section. All of the cross streets have been lowered and subways have been built. All the construction is of first-class reinforced concrete, and dingy-looking grade crossings, or 'death traps,' have been changed to viaducts of architectural beauty.

"The new Illinois Central station at Calhoun and Main streets is rapidly nearing completion. It is a very impressive structure. The first and second floors will be used for passenger service by the Illinois Central, the Frisco and the Rock Island systems. The remaining six floors will be occupied by various Illinois Central

officials representing every department. This station is a modern structure in every way, and is a welcome addition to 'Architectural Memphis.' It is being built by the James Alexander Construction Co.

"The new standard classification yard at Nonconah is complete in every way, consisting of 15 miles of tracks, a 24-stall roundhouse, a machine shop, repair sheds, oil-house, a modern coaling station, a restroom and an office building. This new terminal will greatly relieve the congestion in the city terminals, and is a big thing for Memphis in general.

"The piers for the new bridge of the Rock Island system are about complete. The Union Bridge & Construction Co. is at present completing the last pier, which is on the Tennessee side of the river. All of the piers will no doubt be complete before the arrival of high water.

"The best information we are able to obtain is that the Southern Railway will begin actual construction on its proposed yards and other improvements within 30 days. It will construct a new bridge across its downtown yards at Madison avenue, which is the most important thoroughfare in Memphis. We hope to be able to land our portion of this work.

"Memphis will let contract March 31 for a system of sewers to relieve the high-water conditions in the northern part of the city. They will also build a concrete levee wall in North Memphis along Wolf River that will be half a mile long. The entire work will cost \$750,000. This is the largest piece of work the city has undertaken."

TO REORGANIZE A RAILROAD.

Georgia, Alabama & Western to Be the New Name of Atlanta, Birmingham & Atlantic.

A plan for the reorganization of the Atlanta, Birmingham & Atlantic Railway Co. as the Georgia, Alabama & Western Railroad Co. has been prepared by the general protective committee, and it will include the Georgia Terminal Co., the Alabama Terminal Railroad and the Fitzgerald, Ocilla & Broxton Railway. The company has been in the hands of receivers for five years, the receivership having been created January 1, 1909, when default was made in the payment of interest on the first mortgage bonds. E. T. Lamb is now receiver and general manager. The foreclosure sale, which is preliminary to fulfillment of the reorganization plan, will take place at Ben Hill, Ga., 13 miles from Atlanta, on April 22, and the following day the Alabama Terminal property at Birmingham will likewise be sold. The other railroad property will be acquired at the discretion of the committee.

Under the reorganization the first mortgage will remain undisturbed, and the entire property will be acquired subject to it. There are \$4,090,000 of these bonds outstanding. Then the proposed new company will have an issue of \$3,000,000 first and general mortgage 5 per cent. 30-year bonds, \$400,000 equipment trust notes, \$3,200,000 of 5 per cent. non-cumulative preferred stock and \$27,000,000 of common stock. It is necessary to raise \$4,250,300 in cash, and it is proposed to obtain this by selling \$3,200,000 of preferred stock and \$20,080,000 of common stock for \$3,200,000 cash, \$400,000 of equipment trust notes at 90, yielding \$360,000 cash, and \$777,000 of the new bonds at 90, yielding \$699,300 cash. Kidder, Peabody & Co. of New York have underwritten the notes and bonds at the price mentioned; also such of the two classes of stock as may not be subscribed by holders of securities of the old companies, this based upon the assumption that the plan will become effective.

The money thus raised will be used thus: \$3,000,000 in part payment of receiver's certificates and notes, \$233,880 for receiver's tax loans, interest on receiver's certificates, etc., \$120,000 for equipment notes issued by the company, \$110,000 to bankers and underwriters as part compensation and commission. Out of the balance of \$795,420 will be paid the expenses of the receivership and the reorganization, and it is estimated that thereafter about \$500,000 will remain in the treasury.

Subscription rights are as follows: Each \$1000 bond of the old company will entitle its owner to subscribe to \$160 of preferred stock and \$1000 of common stock upon the payment of \$160 in cash. Each \$1000 of the first collateral trust notes may also subscribe to \$134.89 of preferred stock and \$843.05 of common stock upon payment of \$134.89 cash. Upon payment of \$160 cash holders of Georgia Terminal or Alabama Terminal \$1000 bonds may subscribe to \$160 preferred stock and \$1150

common stock in the case of the former for \$160 preferred and \$1000 common in the case of the latter. If the Fitzgerald, Ocilla & Broxton Railway is acquired, holders of its \$1000 6 per cent. bonds will receive \$700 of par value common stock for each bond. Holders of receiver's certificates will receive 60 per cent. in cash and 40 per cent. in bonds of the new company at 90. Common stock to the amount of \$1,815,000 will be allotted to the general committee for compensation and payment of its expenses. Kidder, Peabody & Co. will receive \$110,000 cash and \$5,000,000 par value of common stock as their commission for the underwriting.

There are 661 miles of line in the Atlanta, Birmingham & Atlantic Railway property, which includes 29 miles of leased line and 3 miles of trackage rights. It has valuable terminals in Brunswick and Atlanta, Ga., and Birmingham, Ala. There are 90 locomotives and 3948 cars.

New Equipment, Etc.

Southern Railway has ordered 7 locomotives from the Baldwin Works, Philadelphia, 5 to be Mikado type freight engines and 2 to be eight-wheeled switchers.

United Railways & Electric Co., Baltimore, has decided to build a number of cars with closed vestibules and folding steps. They will be of the semi-convertible type. The exact number which will be constructed is yet to be announced.

St. Louis, Brownsville & Mexico Railway is reported in the market for from 600 to 700 freight cars.

Louisville & Nashville Railroad has ordered 875 tons of bridge steel from the Mt. Vernon Bridge Co.

Bryan & Central Texas Railway has ordered from the Hall-Scott Motor Car Co. 2 passenger motor cars, each 52 feet 4 inches long, with 100-horse-power motors, and each having a capacity of 72 passengers.

Chesapeake & Ohio Railway has ordered 300 tons of bridge steel from the McClintic-Marshall Construction Co., Pittsburgh.

St. Louis & San Francisco Railroad has ordered 6000 tons of rails from the Illinois Steel Co., Chicago.

Virginian Railway is reported in the market for 300 tons of bridge steel.

Charleston Northern Railroad, now under construction, has received 800 tons of rails from the Maryland Steel Co., Sparrows Point, Md., this being the second shipment from the mills.

Jacksonville (Fla.) Traction Co. has built a wrecking car in its own shops.

St. Louis, Brownsville & Mexico Railway, says a report from Houston, Tex., will spend \$2,000,000 for equipment, including 20 locomotives, 20 all-steel passenger cars, 500 box cars, 100 ballast cars, 25 oil tank cars and 15 cabooses.

Pennsylvania Railroad has ordered 300 tons of bridge steel from L. F. Shoemaker & Co.

St. Louis Southwestern Railway is reported in the market for 1000 tons of bridge steel.

New Orleans Great Northern Railroad has awarded a contract to D. N. Cashion, Monticello, Miss., to furnish a large quantity of railroad ties.

Railway Supply Co., St. Louis, is reported in the market for 40 tank cars, 10 box cars, 10 flat cars and 5 gondola cars.

Maryland & Pennsylvania Railroad has ordered a steel beam span bridge of 400 tons from the Phoenix Bridge Co., Phoenixville, Pa.

New Orleans Railway & Light Co., which proposed to build cars in its own shops, has decided otherwise and will soon ask for bids to build 50 new cars. The shops will devote all their time to repair and reconstruction work.

Automatic Electric Signals.

President Fairfax Harrison of the Southern Railway announces that the company will proceed immediately to install automatic electric block signals on 150 miles of double track, including the following lines: Amherst to Whittles, Va., 57.3 miles; Atlanta to New Holland, Ga., 53.46 miles; Howell (Atlanta) to Austell, Ga., 15.5 miles; Citico (Chattanooga) to Ooltewah, Tenn., 13.4 miles, and Danville, Va., to Pelham, N. C., 9.3 miles.

These signals will be of the modern upper quadrant, three-position type, now in use on the Southern Railway between Charlotte and Greensboro, N. C., and now being placed between Alexandria and Orange, Va.; also between Knoxville and Morristown, Tenn. In addition to providing every possible feature of safety in train

operation, this signal system greatly increases the traffic capacity of the lines so equipped.

With the completion of electric signal installations on these lines, the Southern will have equipped practically all its double track with this modern facility. Of the lines for which signal installation has just been authorized, 120 miles are on the line between Washington and Atlanta, while the remaining 30 miles are important traffic throats west of Atlanta and east of Chattanooga.

RESULTS OF A MERGER.

Newport News and Hampton Companies Provide for Construction Far Ahead.

President C. Loomis Allen of the Newport News & Hampton Railway, Gas & Electric Co., Hampton, Va., says that the consolidation of the Newport News & Old Point Railway & Electric Co., Citizens' Railway, Light & Power Co., Hampton Roads Traction Co., Newport News Gas Co., Hampton, Phoebus & Fort Monroe Gas Corporation into the present corporation, together with the voting of the deed of trust and mortgage, completes the reorganization of the public utilities that render service to the residents of the peninsula.

During 1911 the service rendered was not satisfactory, interruptions were frequent and of long duration. The corporations were burdened with debt and large sums of money were required to restore the property so that satisfactory service could be given. The present owners in January, 1912, undertook the work of rehabilitation, and to make improvements and extensions to the railway service, to the electric light, power and gas distribution systems into residential sections that were unserved by these utilities.

Over \$600,000 in cash has been expended in making improvements, betterments and extensions. At the same time purchases were made of the underlying bonds of the Newport News & Old Point Railway & Electric Co., Citizens' Railway, Light & Power Co., Hampton Roads Traction Co. and Hampton, Phoebus & Fort Monroe Gas Corporation, with the end in view that when the improvements were completed a conservative reorganization of the finances of these corporations could be accomplished so that not only their present financial needs would be cared for, but that ample provision of money would be made to pay for improvements and extensions hereafter.

The Newport News & Hampton Railway, Gas & Electric Co. is now in such position that necessary improvements, additions, betterments and extensions into new territory can be made when good business judgment will justify the expenditure. Of \$2,479,000 first and refunding bonds issued (out of an authorized total of \$7,500,000), \$175,000 are in the treasury, and the proceeds thereof will be used to pay for improvements and extensions which are contemplated in the near future. \$2,304,000 of these bonds are issued to pay for cash advanced for improvements, debts, and to purchase underlying securities, and the Newport News & Hampton Railway, Gas & Electric Co. is now free from debt. It has in its treasury \$175,000 bonds, and in addition thereto \$250,000 of preferred stock. There is in the hands of the trustee of the bond mortgage \$2,796,000 of first and refunding bonds, this latter amount being deemed sufficient to provide funds for the payment of improvements and extensions for the next 25 years after the \$175,000 have been used.

The gross earnings of the company during 1913 were \$797,459.63, increase as compared with 1912 \$58,328.15; operating expenses \$482,024.03, increase \$5,399.06; net earnings after taxes \$287,356.82, increase \$49,070.44; gross income \$294,509.85, increase \$33,681.02; net income after deductions \$71,443.88, increase \$17,843.59.

The other officers of the Newport News & Hampton Railway, Gas & Electric Co. are Edward F. Peck, vice-president; John N. Shannahan, vice-president and general manager, and Wm. Stewart, secretary and treasurer.

Electric Cars to Spartanburg.

The Greenville, Spartanburg & Anderson Electric Interurban Railway Co., which is the Southern division of the Piedmont Northern Lines, has opened for regular service its 32-mile extension from Greenville to Spartanburg, S. C. The daily schedule includes 11 trains each way, nine for passengers and two for freight. The time for the run is 1 hour and 20 minutes. There are

16 stations in addition to the two terminals. No announcement has been made to indicate when the contemplated extension from Spartanburg to Gastonia, N. C., will be built. It would be about 50 miles long, and would connect at Gastonia with the company's line from there to Charlotte.

NEW RAILROAD FINANCING.

\$17,500,000 of Securities Floated by Two Companies in the Past Week.

New railroad financing during the past week includes \$10,000,000 by the Norfolk & Western Railway and \$7,500,000 by Chicago, Rock Island & Pacific Railway. The Norfolk & Western loan consists of \$10,000,000 of 4½ per cent. equipment trust certificates, which were awarded to Brown Bros. & Co. of New York and Philadelphia; they were all soon sold, and it is announced that the issue was largely over-subscribed at par and interest. The other loan was composed of \$7,500,000 of 6 per cent. two-year collateral trust notes, which it is understood were sold to Wm. A. Read & Co. of New York. The proceeds are to be used for improvements of the railway until July 1. It may also be mentioned that the St. Louis & San Francisco Railroad has sold \$565,000 of receiver's certificates, the last of an authorized issue of \$3,000,000.

New Schedule and An Extension.

[Special Correspondence Manufacturers Record.]

Pascagoula, Miss., March 30.

The Pascagoula, Moss Point & Northern Railroad has put into effect a new train schedule giving a service of two trains daily in each direction between Pascagoula and Evanston, Miss. It is so arranged as to give connections with the New Orleans, Mobile & Chicago Railroad on the north and with the Louisville & Nashville Railroad on the south.

The road has lately been placed under a new management, with Stewart Starr, who is well known in railroad circles, as general manager. He announces that it is intended to extend the road to connect either with Lucedale or to a connection with the Alabama & Mississippi Railroad, which runs west from Vinegar Bend, on the Mobile & Ohio Railroad to Leakesville, Miss., and then southward to within a few miles of Lucedale, which is on the New Orleans, Mobile & Chicago Railroad. A new station will be erected at Big Point, where there is a settlement of Northern colonists; also a new siding.

CHAS. E. CHIDSEY.

Steel and Concrete Bridge.

The Houston & Brazos Valley Railroad and Brazoria county, Tex., will jointly construct a combination highway and railroad bridge over the Brazos River, thus connecting Freeport and Velasco, Tex. The structure is estimated to cost \$120,000, and it will consist of two steel spans 125 feet long and a swing bridge 290 feet long, supported by concrete piers and abutments. Bids for the construction will be opened about May 1, but the exact date has not been set. C. A. Thanheiser, engineer maintenance of way Missouri, Kansas & Texas Railway, Dallas, Tex., is the engineer in charge.

Railroad Telephone Service.

Telephones are now in use for train dispatching and for sending messages on the entire line of the Cincinnati, New Orleans & Texas Pacific Railway (Queen & Crescent Route), between Chattanooga and Cincinnati, the line between Chattanooga and Oakdale, Tenn., having just been completed and put in service. Work is progressing on a telephone line from Chattanooga, Tenn., to Meridian, Miss., covering the entire line of the Alabama Great Southern Railroad, upon the completion of which the telephone will be used exclusively from Cincinnati to Meridian.

Rutledge Smith, industrial agent of the Tennessee Central Railroad, Cookeville, Tenn., is circulating a folder dealing with the possibilities of oil production in Putnam, Overton, Fentress, Pickett, Clay and Jackson counties, Tennessee.

MINING

Proposes 2,000,000 Tons Annually.

Construction is proceeding for the developments of the Main Island Creek Coal Co., Logan, W. Va. Four steel tipples have been contracted for at an average cost of \$22,000, 72 houses have been completed, 200 more are under construction, and possibly a total of 1000 will be built during the summer. This company has 27,000 acres of coal land under lease, and within 18 months expects to begin shipping from 16 mines, anticipating annual output of 2,000,000 tons of coal by the end of 1915. It organized with \$500,000 capital stock, and John Laing, Charleston, is president.

Slemp Consolidated Coal Co.

Slemp Consolidated Coal Co., Paintsville, Ky., recently organized with a capital stock of \$2,500,000, consolidates various holdings which have been practically under the same ownership. It brings 85,000 acres of coal land under a single management, and will effect leases with operatives. A lease has recently been given to W. E. Davis of Jellico, Tenn., and a lease is being negotiated to J. T. Davis and W. N. Heath of Hazard, Ky. C. B. Slemp of Big Stone Gap, Va., is the Slemp company's president.

For 1000 Tons Daily Output.

A daily output of 1000 tons of coal is proposed by the Canal Export Coal Co., which will develop 440 acres of coal land. This company was referred to last week as incorporated with \$300,000 capital, and it has since organized with offices at 720 Brown-Marx Building, Birmingham, and the following officers: President, R. H. Elliott; secretary, W. C. Lovejoy; treasurer, Chas. F. Hogue, each of Birmingham; vice-president, E. P. Kimbrough of Greensboro, Ala. It has not decided when to open bids for the machinery needed.

Capitalized at \$1,000,000.

Pennsylvania capitalists will develop coal properties in Sherman district of Boone county, West Virginia, having chartered the Griffith Coal Co. for this purpose, the capital stock being \$1,000,000. They are F. W. Ogden, C. P. W. Dickinson, A. Widdowfield, H. J. McCornick and H. N. Cottle, all of Scranton.

Capitalized at \$500,000.

With a capital stock of \$500,000, the Monongalia Coal Co. of Fairmont, W. Va., has been incorporated to develop West Virginia coal properties. J. A. Clark, H. B. Clark, T. F. Robey and associates will organize this corporation.

Blacksburg Coal Co.

H. C. Whitman of Palmer, W. Va.; Charles A. Frisbie of Moosic, Pa., and Flora Ransom of Plymouth, Pa., have incorporated the Blacksburg Coal Co. with a capital stock of \$200,000. This company will develop coal land near Palmer.

Delta Land & Timber Co.

The Delta Land & Timber Co., Houston, auxiliary of the Central Coal & Coke Co., Kansas City, is planning to build a large lumber milling plant near Houston. This plant is to be of steel and concrete construction, equipped with band mill and accompanying machinery, for a daily capacity of 100,000 feet of lumber. It will receive logs shipped to Houston from the company's large area of virgin short-leaf yellow-pine timber located on the International & Great Northern Railroad, about 35 miles north of Houston. It is understood that contracts for buildings and machinery are now being considered, with the probability that they will soon be awarded.

The Tri-State Water and Light Association, A. J. Sproles of Greenville, S. C., president, will meet at Atlanta, Ga., April 16-17.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

ADDING TO SOUTHERN SPINDLEAGE.

Total for First Quarter Is 75,703 Spindles and 954 Looms, a \$1,892,575 Investment.

Creditable activity was displayed during January, February and March in plans for adding to the spindleage and other equipment of the cotton-growing States. This first quarter of the year resulted in announcements of mills to be built and enlarged to the extent of requiring the installation of 75,703 spindles and 954 looms, which indicates an investment of approximately \$1,892,575 for the necessary buildings and machinery. An unusual feature of the figures is that for the three months there are more spindles and looms designed for operation by new companies than for installation by established enterprises, the opposite having been especially notable for most of the quarter periods

Name.	Location.	Spindles.	Looms.
Georgia.			
*Hawkinsville Cotton Mill.....	Hawkinsville.....	24
Maryland.			
Delbert Manufacturing Co.....	Elkton.....	3	30
North Carolina.			
*Hannah Pickett Mills.....	Rockingham.....	4,500	100
Clinchfield Manufacturing Co.....	Marion.....	26,000	600
Greenville Cotton Mills.....	Greenville.....	5,000
*A. A. Shuford Mill Co.....	Hickory.....	1,200
*Jennings Cotton Mills.....	Lumberton.....	2,000
*Patterson Manufacturing Co.....	Kannapolis.....	10,000
*Cora Cotton Mills.....	Kings Mountain.....	5,000
*Brown Manufacturing Co.....	Concord.....	6,000
South Carolina.			
*Marlboro Cotton Mills.....	McColl.....	59,700	700
*Hermitage Cotton Mills.....	Camden.....	6,000	200
Tennessee.			
Appalachian Mills.....	Knoxville.....	10,000
Total for first quarter of 1914.....		75,703	954
*Established mills enlarging.			

Clinton Mills Co.

Organization has been effected by the Clinton Mills Co., Emporia, Va., mentioned last week as organized with \$150,000 capital stock. H. A. Ayvad of Hoboken, N. J., is president, W. Samuel Goodwyn is vice-president and secretary, and E. M. Fadden is treasurer, both of Emporia. This company is an auxiliary of the Ayvad Manufacturing Co., Hoboken. It has let contract for a \$50,000 building, 500 feet long by 61 feet wide, and for 5000 spindles, 100 looms, group drive electrical machinery, etc., costing about \$70,000.

A \$1,400,000 Capital Increase.

P. H. Hanes Knitting Co., Winston-Salem, N. C., has increased capital stock from \$600,000 to \$2,000,000. It plans to construct additional buildings, equip them with new machinery, etc., but is not now ready to announce details. This plant is at present operating 10,000 spindles, 120 knitting machines, 250 sewing machines, dyeing equipment, bleaching machinery, finishing apparatus, etc., by electric power, with 700 operatives. It manufactures men's cotton ribbed underwear.

Appalachian Mills.

Appalachian Mills, Knoxville, Tenn., will soon award contract to construct another story on the Holston building, which will afford about 50,000 square feet of floor space. This company has purchased 10,000 spindles, and will manufacture each week about 70,000 pounds of Nos. 8, 9 and 10 knitting yarn for consumption in its underwear knitting mill. About \$200,000 will be the cost of this additional Appalachian plant, recently announced as to be established.

of recent years. Four new companies are to have 41,003 spindles and 630 looms, the estimated expenditure being \$1,025,075, while nine enlarging plants will invest about \$867,500 for adding 34,700 spindles and 324 looms.

Interesting announcements of the first quarter of the year may be briefly outlined as follows: Organization of Clinchfield Manufacturing Co., Marion, N. C., with \$500,000 capital, to build a 26,000-spindle and 600-loom plant; completion of Kershaw (S. C.) Cotton Mill, a \$200,000 plant having 10,000 spindles and 500 looms; Hannah Pickett Mills, Rockingham, N. C., decided to add 4500 spindles and 100 looms; Aiken Manufacturing Co., Bath, S. C., and Seminole Manufacturing Co., Clearwater, S. C., both under the same management, arranged to utilize 1000 electrical horse-power from Georgia-Carolina Power Co.'s hydro-electric development on Stevens Creek near Augusta, Ga.; Appalachian Mills, Knoxville, Tenn., manufacturer of knit underwear, determined upon an installation of 10,000 spindles to furnish knitting yarns for that company's knitting mill; Patterson Manufacturing Co., Kannapolis, N. C., arranged to build a 10,000-spindle addition; Erlanger Cotton Mills, Lexington, N. C., completed plant of 25,000 spindles and 580 looms, a \$500,000 investment, to manufacture cotton cloth for shipment to Northern underwear factories owned by capitalists building the Erlanger mill; Brown Manufacturing Co., Concord, N. C., announced a 6000-spindle addition; Monarch Cotton Mills, Union, S. C., completed a 20,000-spindle and 500-loom enlargement.

Reports for the first quarter of 1914 are briefly summarized in the accompanying table.

tanburg, S. C.; Carroll Baldwin of New York; Hugh F. Little, J. L. Morgan, John Yancey and Byron Conley of Marion. This company has contracted for 26,000 spindles, 600 looms, steam power equipment, etc., and will contract for buildings. Its engineer and architect is J. E. Serrine, Greenville, S. C. D. D. Little will be president; J. L. Morgan, vice-president, and Hugh F. Little, assistant treasurer.

The Cotton Movement.

In his report for March 27 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 208 days of the present season was 13,250,046 bales, an increase over the same period last year of 755,798 bales. The exports were 7,591,709 bales, an increase of 521,931 bales. The takings were, by Northern spinners, 2,121,059 bales, a decrease of 104,916 bales; by Southern spinners, 2,496,099 bales, an increase of 238,188 bales.

To Rebuild Textile School.

The Agricultural and Mechanical College, West Raleigh, N. C., has awarded contract to S. S. Toler, Rocky Mount, N. C., to rebuild its textile school building, burned at a loss reported to approximate \$30,000. Manufacturers of textile machinery will be invited to furnish the equipment needed for textile instruction, they having furnished the equipment destroyed.

For Webbing Manufacturers.

A Northern manufacturer wants to correspond with manufacturers of webbing one-thirty-second to one-eighth in thickness, and might purchase a plant partially equipped for such manufacture. Letters addressed to "Webbing," care of MANUFACTURERS RECORD, will be forwarded.

Textile Notes.

King Cotton Mills Corporation, Burlington, N. C., will change to hosiery yarn production, as lately reported. It has purchased necessary machinery and will operate 9180 spindles, probably by electric power. Packing-room, elevator and toilets will be installed.

Roberta Manufacturing Co., Concord, N. C., has completed rebuilding its mill previously destroyed by fire. It has 1500 spindles, etc., driven by a 150 horse-power water and electrical equipment. About \$15,000 has been invested for the machinery, and the daily capacity will be 1500 pounds of yarn, with 30 operatives employed.

Wants Location for Factory.

Organizations interested in securing the establishment of manufacturing enterprises in their cities will be interested in a communication from Geo. W. Ketteringham, architect, 1028 Milan street, New Orleans, who writes to the MANUFACTURERS RECORD as follows:

"I am looking for a location for a bolt and nut factory for manufacturing all kinds of bolts and nuts and locking devices for same. A point close to the raw materials, fuel and a good shipping location is desired. Other advantages would also be considered."

The next annual meeting of the Interstate Cottonseed Crushers' Association, M. E. Singleton, president, and Robert Gibson, secretary and treasurer, will be held at New Orleans May 18-20.

The Chamber of Commerce of Wilmington, N. C., H. B. Branch, secretary-treasurer, has issued a booklet giving in condensed form facts about that city.

To Build Pasquotank Mill.

The Pasquotank Hosiery Co., Elizabeth City, N. C., has organized with officers as follows: Noah Burfoot, president; F. V. Scott, vice-president; Dennis Van Horn, general manager. It has decided to erect a building and install machinery for a daily capacity of 300 dozen pairs of hosiery. This company was lately mentioned as having incorporated with \$50,000 capital stock.

To Spin Woolen Yarns.

The Sterling Spinning Co., Louisville, Ky., recently noted incorporated with \$25,000 capital stock, has secured a building at 17th street and Ormsby avenue in which to install machinery for manufacturing woolen yarns for the sweater trade. It has steam power equipment and electric motors. George Dunham, previously reported as planning a woolen-mill company, will be president and general manager.

Gulf Menhaden Co.

Capitalized at 250,000, the Gulf Menhaden Company of Houston has been organized to construct a dock and a plant for manufacturing fish scrap and oil from menhaden. Dock construction will begin within 90 days, and plant construction will begin 60 days later. This company's officers are: Bertram D. Lackey, president; Geo. J. Wilson, vice-president and treasurer; Geo. J. Brinton, secretary.

Clinchfield Manufacturing Co.

The Clinchfield Manufacturing Co., Marion, N. C., recently mentioned, will organize with \$500,000 capital stock and the following directors: D. D. Little of Spar-

In the past 10 years Tampa, Fla., has paid \$8,343,373 in internal revenue, the annual payments increasing from \$510,066 in 1903 to \$894,879 in 1913.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Electrical Machinery for France.

Comptoir Generale d'Exportation, 62 Rue d'Hauteville, Paris, France, writes to the MANUFACTURERS RECORD as follows:

"A local electrical company has asked us to get them estimates on the following: Data and prices on accumulator battery, 600 amperes hours, in connection with dynamo measuring 2x115-2x175 volts; price quoted to comprise all data for accessory apparatus; negative and positive contact boards; height, width and depth of apparatus included; exact quantity of acid at 63 degrees Baume, character of insulators, etc.; cost of mounting and putting battery in operation; wooden cells lined with lead for making acid mixtures; cells of 13 cubic meters contents; 4 granite containers or holders; 2 pairs rubber gloves; 4 specific gravity measures; 1 voltmeter graduated from 0 to 5 volts; electrically heated still to produce continuously 25 liters of distilled water each hour; 1 form for charging and discharging battery and accessories; iron plate for battery; white marble square; 2 electro-magnetic ampere meters up to 300 amperes; electro-magnetic ampere meter, 200 amperes; electro-magnetic voltmeter up to 350 volts; bipolar commutator of 5 phases for voltmeters; tripolar interrupter with circuit of 300 amperes; necessary cables for cutting in and out battery from switchboard; estimator for accumulators for 700 amperes and another for 800 amperes."

Rubber, Glassware, Silverware, Etc.

Fritz Bluhdorn, Gyongyiragutza 48, Pestszentlorincz, Hungary, writes to the MANUFACTURERS RECORD as follows:

"My intention is to introduce American products in Austria, Hungary, and the Balkan States. I am well connected with the leading firms in these countries and in Germany. The goods for which there is a big demand at present on these markets are rubber goods, office supplies, cut glassware, silverware (plated) and sporting goods. My idea is either exclusive agencies or a sale office of American goods. I travel in the countries and send all orders to the manufacturers; the factories deliver the goods direct to the customers and the latter pay direct. I get the commission each month for all orders delivered. Besides that, the manufacturers have to pay a fixed amount of expenses. It would be better to establish a central sale office, as the customers in Hungary and the Balkans like to see goods personally in the whole collection, and not only in a few samples."

Electrical Products, Motor Cars, Etc.

Robert W. Blackwell & Co., 14 Great Smith street, Westminster, London, S. W., England, write to the MANUFACTURERS RECORD as follows:

"We are interested in all classes of machinery, fittings, appliances, etc., connected with the electrical transmission business, and also in patrol motor cars and accessories. We represent several American firms, including Adams-Bagnall Electric Co., Pittsburgh High Voltage Insulator Co., H. W. Johns-Manville Company, P. Wall Manufacturing Co. and J. G. Bodenstein & Co. We shall at all times be pleased to receive details of new lines which may from time to time appear on the market, with a view to handling same on this side. Our organization enables us to handle everything in a businesslike manner, and our reputation is such as to ensure a ready sale of any goods we have to offer."

Wanted for England's Trade.

Leo H. Hearnshaw, 20 Bank street, Sheffield, England, writes to the MANUFACTURERS RECORD as follows:

"I shall be pleased to communicate with any advertiser who deals in any line which would find a market here. I should like to get in touch with some American firm with a London depot and carry on business with

the London house, as it would be obviously impossible, in the case of engines, boilers, etc., to have same coming from America by single orders. Besides, a prospective purchaser would have an opportunity of inspecting goods before purchase. If you could put me in communication with any firm of this description I might be able to arrange to represent them in the north of England and Midlands, they paying a salary in addition to commission, and also paying the expenses of advertising the goods. In any event, it should be quite possible to make arrangements for representing some American house, they in turn reciprocating with respect to the goods in which I deal."

(Mr. Hearnshaw deals in iron and steel, machine tools, railway materials, building construction supplies, steam fittings, piping, etc.)

Scales and Showcases.

D. L. Cleland, 47 Bankville Road, Birkenhead, England, writes to the MANUFACTURERS RECORD as follows:

"I wish to get into direct touch as quickly as possible with the best U. S. A. makers of coin-operated personal weighing scales. The following firms I am already communicated with. Messrs. Caille Bros. Co., Mills Novelty Co., Watling Manufacturing Co. I want also to get into touch with the best makers, at keen prices, of metal framed and wood framed glass showcases. There are, I believe, distinct openings for certain lines of American products in this country, our conservatism being the greatest stumbling block."

Bolts, Nuts and Machinery.

Thomas Tapling Dallow, 3 Fourth avenue, Small Heath, Birmingham, England, writes to the MANUFACTURERS RECORD as follows:

"I shall be pleased if you will put me in touch with manufacturers desirous of getting their goods on the British markets. Are there any machinery manufacturers or bolt and nut people not represented here? If so, will you ask them to communicate with me with a view to representation? I shall be pleased to hear from manufacturers offering salable articles for this country."

Wheat Flour for Morocco.

Morocco-American Trading Co., H. Toledano, general manager, Tangier, Morocco, writes to the MANUFACTURERS RECORD as follows:

"We are devoted to the promotion of American trade in this country, and shall welcome any assistance in that direction. We have written to the Gulf Refining Co. of Pittsburgh in regard to gasoline and fuel oil. If you can connect us with some other manufacturers of these products who will submit quotations c. i. f. Moroccan ports, we shall appreciate your doing so. We are also interested in wheat flour of cheap qualities."

For Chain Manufacturers.

Southwestern Sanitary Depot (T. E. Ventom), Grimsdon Road, Fulham, London, S. W., England, writes to the MANUFACTURERS RECORD as follows:

"We beg to enclose two samples of goods that we buy large, and shall be glad if you can introduce our wants to your most competitive producers."

(Sample is cheap grade metal chain several feet long, bolts, nuts, etc.)

For Hardware Manufacturers.

C. E. Johnston & Co., 22 West street, Port Antonio, Jamaica, B. W. I., writes to the MANUFACTURERS RECORD as follows:

"We do not handle machinery, but handle hardware, and shall be pleased to receive communications from any of the manufacturers in this line."

Machinery for Making Ammunition.

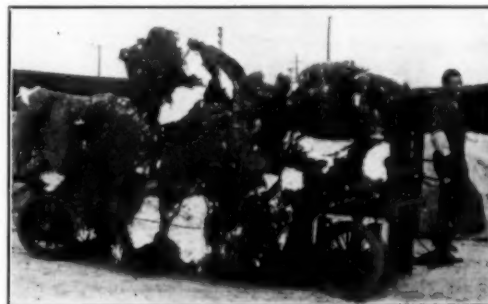
H. Suppa, Avenida Del Sol 190 Lima, Peru, wants names and addresses of builders of machinery for making ammunition.

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Elwell-Parker Electric Trucks.

The development of efficiency methods in all branches of industry and business requires that every feature of such development should keep pace with the general improvements. In the handling of baggage, freight and other materials at railway stations, on steamship docks, about industrial plants and warehouses the use of storage battery trucks has been found to add materially to the efficiency and economy of handling operations.



STORAGE BATTERY TRUCK IN COMPRESS.

The trucks shown in the two accompanying illustrations are made by the Elwell-Parker Electric Co., Cleveland, O. The cotton hauling view shows the truck handling cotton for the Atlantic Compress Co., Savannah, Ga., where the president of the company reports that a saving of 33 per cent. is effected by their use. The truck shown is hauling 10 bales of cotton averaging 500 pounds each. The other illustration shows a somewhat different type of body loaded with heavy bags on the Ocean Steamship Co.'s docks at Savannah. A former gang of 11 men with 5 hand trucks which handled 10 tons per hour was reduced on the receipt of two electric trucks to 8 men, and they are reported as handling 30 tons per hour, compared with the previous 10 tons per hour.

Each type is designed with a particular service in view, but the mechanical and electrical details are similar, so that interchangeability of corresponding parts and easy renewals result. Important features are found



TYPE FOR LOADING FREIGHT CARS.

in the automatic control, automatic brakes, four-wheel steering arrangement and the double-end control for baggage trucks.

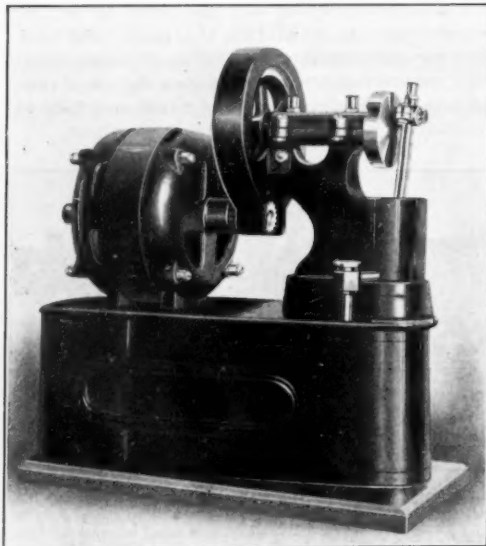
The driver stands on a small platform as shown, and operates the steering lever with his right hand and control lever with left hand. The operating platform is in two parts. The left half automatically operates the circuit breaker when pressure of foot is removed, and the right half in a similar way is utilized to set or free the brakes as operator raises or lowers his foot. If he leaves the platform the brakes are set and the circuit breaker acts, so that accidents are prevented.

The construction of the Elwell-Parker storage battery trucks is illustrated and described in detail in bulletin No. 100 issued by the company. They are in use at the Texas City, Tex., freight terminals, Central of Georgia Railway terminals, Savannah, Ga., on the Stuyvesant docks of the Illinois Central Railroad at New Orleans,

La., and in many industrial, railway, steamship and other plants.

Fort Wayne Small Motor Drives.

The range of usefulness of electric motors has become so extensive in the past few years that, no matter what the need for power may be, the practicability of using electric motors is one of the first considerations in localities where electric power is available or may be established. This wide demand for motors now extends



AIR COMPRESSOR WITH $\frac{1}{4}$ H. P. MOTOR.

to uses where a very small power equipment is necessary, and to meet these demands the Fort Wayne Electric Works of General Electric Co., Fort Wayne, Ind., manufactures fractional horse-power motors made with special regard for reliability. In the accompanying illustrations two applications are shown, which exemplify the method of applying them.

They are extensively used in industrial and domestic lines, including factories, hospitals, hotel, laboratories, offices, restaurants, stores and residences, so that the field is almost unlimited. Their flexibility, cleanliness,



ADDRESSOGRAPH OPERATED BY SMALL FORT WAYNE MOTOR.

safety and economy make them desirable for motive power for all forms of mechanism requiring energy for operating.

To meet the demand for alternating-current motors that will meet commercial conditions, the company makes single-phase alternating-current motor for one one-hundredth horse-power capacity and upward, covering a wide range of ratings. A similar line of direct-current motors is made for use where direct current is available,

The accompanying illustration of the air compressor shows a single-phase induction motor of one-quarter horse-power. The equipment is specially designed to meet the requirement of the particular method of mounting the motor.

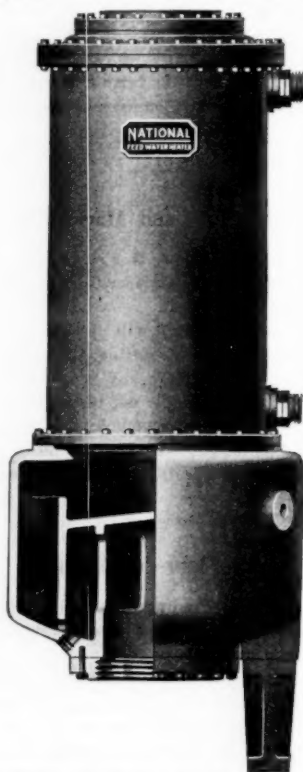
The other illustration shows a one-quarter horse-power Fort Wayne alternating-current motor, 60 cycle, 1800 revolutions per minute, driving an addressograph.

A large number of views of other types of machinery driven by electric motors are given, with descriptions and other information, in bulletin 1146 issued by the company.

National Feed-Water Heater and Oil Separator.

One of the recognized advantages of the closed feed-water heater is found in the fact that the feed water is kept free from the exhaust steam, which may contain considerable oil. This type of heater prevents oil getting into the boiler even if no oil separator is used. When installed, the condensed steam continually leaves the heater through the open drip pipe.

In some installations this condensed steam can be used to advantage in icemaking, for washing, or by returning it to the boiler, together with water from a heating system or other apparatus. But the oil must



FEED-WATER HEATER AND OIL SEPARATOR COMBINED.

be eliminated, and it is usually easier to take it out of the exhaust steam than to filter it from the condensation.

To facilitate installation, the National Pipe Bending Co. of 97 Lloyd street, New Haven, Conn., has made a special closed heater with a separator forming part of it, as shown in the illustration. The separator is placed at the bottom of the heater, so that the exhaust steam will impinge upon the baffles and by change of direction and passing through the ports shown, will be freed from particles of oil without adding to the back pressure on the engine. This is accomplished by a design which is a slight modification of the company's regular horizontal oil separator, which is distinguished chiefly by the individual baffles and arrangement of ports having an area one and one-half times greater than that of the inlet pipe.

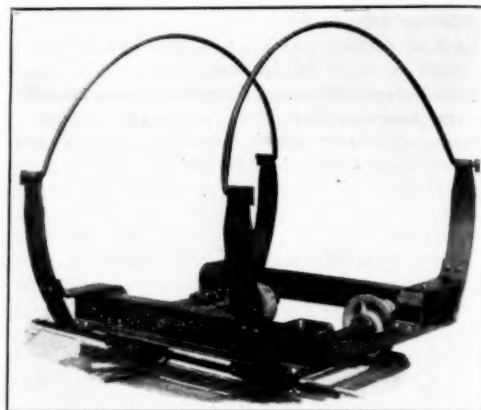
The Preservation of Railroad Ties.

Because of scarcity of suitable railroad ties, many railroads are either installing creosoting plants or are purchasing creosoted ties from the different private companies. This wide demand for creosoting material has been the means of directing considerable attention to the developing of machinery for this work, and the equipment has been much improved within the past few years.

The accompanying illustration shows one of the latest types of cars used for creosoting railroad ties. Special attention has been given to utilizing all the

space possible, as the end sills are dropped so that several ties can be loaded in between the side sills. The car thus loaded is then run into the creosoting cylinder. The belts or bars which hold the ties on the car are provided with pivoted pins at the end, which when turned parallel with the bars allow them to be easily pulled out and when turned their normal position prevents them from coming out.

It has been found that because of rapid corrosion in the cars, caused by some of the solution used in creosoting, heavy bar sections are better than angles or channels. They resist corrosion better, and in this case the cradles are made of heavy bar to guard against any



CAR FOR USE IN CREOSOTING RAILROAD TIES.

weakness in them which would cause difficulty in operation of the equipment.

The car shown is for the creosoting plant of the Charlotte Harbor & Northern Railway Co., Boca Grande, Fla., and a number of this type were furnished by the Orenstein-Arthur Koppel Company of Koppel, Pennsylvania.

Milburn Miners' Light.

The well-recognized advantages of acetylene gas for mine lighting and for miners' individual use have resulted in the wide adoption of this means of lighting. To meet the demand for a strong and dependable miners' light, the Alexander Milburn Company, Baltimore, Md., has developed and manufactures the lamp shown in the illustration.

In its design the lamp has few parts, and they are all accessible without the need of tools or the breaking of soldered joints. The top of the lamp leading to the water chamber forms a funnel. By merely turning the disc in the center of this recess the water chamber is opened, ready for filling. In this natural permanent



MILBURN ACETYLENE MINERS' LIGHT.

funnel there is no cap to lose, no part to break, and the water can be placed in the lamp even in the dark. The feed control is well protected by this funnel.

The water feed control consists of a rod made in solid brass, with a handle at the top. It passes through the sealing disc of the funnel-shaped recess. A spiral spring protects the valve from the carbide and distributes water through the mass of carbide in a simple and natural way. The feed is constant, and will not leak when closed.

The lamp is fitted with a filter, through which the gas is strained before passing to the burner. The reflector is made of aluminum, so that it will not burn or tarnish, and is at the same time light and strong. It can be removed while the light is burning.

The miners' light is illustrated and described in detail in the pamphlet issued by the company, which pamphlet also presents the Milburn lantern, table lamp, headlight, portable acetylene light, house-lighting plants, oxy-acetylene welding and cutting outfits.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ark., Lake City.—Four drainage districts of Craighead county will construct 20 to 30 bridges for public roads at various times from now until close of 1915; structures to be from 40 to 100 ft. long; John W. Scobey of Lake City is Atty. (See Machinery Wanted.)

La., Lake Charles.—Calcasieu Parish Police Jury, E. C. House, clerk, will construct about 250 lin. ft. pile trestle in connection with highways Nos. 3, 4 and 9, about 43 mi.; bids until Apr. 27; lately noted. (See Road and Street Work and Machinery Wanted.)

La., New Orleans.—Comms. Public Finance let contract at \$28,976 to Midland Bridge Co., Kansas City, Mo., to construct bridge over entrance to Southern Yacht Club pen. (Lately noted as lowest bidder.)

Md., Annapolis.—Anne Arundel County Comms. let contract at \$7365 to Sanford & Brooks Co., Baltimore, Md., to construct bridge over Stoney Creek. (Lately noted as lowest bidder.)

Tenn., Chattanooga.—Tennessee River Bridge Com. of Hamilton county, Theo. F. King, Chrmn., will repair Walnut St. bridge across Tennessee River; repairs will consist of removing present plank floor and sidewalk and timber stringers supporting same, placing steel stringers under each street-car rail, and cross-tied timber stringers under roadway and sidewalks; construct roadway of cross-tied wood blocks laid on cross-tied timber subfloor, while sidewalk will be of untreated heart pine, spiked to cross-tied timber stringers; bids until Apr. 14 at office of County Judge; Hamilton County Comms. lately noted as voting \$100,000 bonds. (See Machinery Wanted.)

Tex., Fort Worth.—Tarrant County Commissioners let contract at \$241,35 to Missouri Valley Bridge & Iron Co., Leavenworth, Kan., to construct Keller Bridge. (Lately noted.)

Tex., Freeport.—Houston & Brazoria Valley R. R. Co. (operated by Missouri, Kansas & Texas Ry. Co. of Texas, C. A. Thanheiser, Engr. M. of W.) and Brazoria county will construct jointly combination highway and railroad bridge across Brazoria River, connecting Freeport and Velasco; 2 steel spans, 125 ft. long, and swing bridge, 290 ft. long, supported by concrete piers and abutments; cost \$120,000; Mr. Thanheiser, Engr. (Lately noted.)

Tex., Houston.—City will construct bridge on Crosby and Dayton Rd. and redeck Cedar Bayou bridge on Crosby and Mt. Belyue; bids until Apr. 3; Howe & Wise, Engrs., Houston; H. L. Washburn, County Auditor. (See Machinery Wanted.)

Tex., Longview.—International & Great Northern Ry., O. H. Crittenden, Chief Engr., Houston, Tex., has plans for bridge over Sabine River; cost \$60,000.

Tex., Luling.—Caldwell and Guadalupe County Comms. adopted plans and specifications for bridge over San Marcos River, and will open bids Apr. 16 to construct. (Lately noted.)

Tex., San Antonio.—City Engr., Hans Helland preparing plans for concrete bridge to replace present structure on Houston St.; 2-span girder bridge, using present abutments.

Va., Danville.—Southern Ry., B. Herman, Ch. Engr., Washington, D. C., will construct two-track concrete arch bridge about 650 ft. long and 25 ft. above low water across Dan River; construction will probably begin within 90 days.

CANNING AND PACKING PLANTS

Ala., Huntsville.—S. B. Fudge purchased Alabama Nursery Farm and will establish canning factory.

Ark., Vandervoort.—Vandervoort Canning Co., capital stock \$3000, incptd. by Frank R. Crain, G. H. Barnes, Fred C. Hofmeister and others.

Fla., Bassenger.—Oscicola Supply Co. incorporated by R. L. Pearce, W. P. Underhill, C. W. Hilliard and others to erect vegetable-packing plant.

Fla., Tallahassee.—Ben Phipps will erect tomato-canning plant; probably install syrup factory.

N. C., Beaufort.—Beaufort Seafood & Product Co., capital stock \$50,000, incptd. by W. P. Smith, H. L. Potter and K. E. Smith.

Va., Buchanan.—Old Dominion Packing Co., authorized capital stock \$15,000, incptd. by H. A. Latane, Prest.; L. O. Vaughan, Secy.

CLAYWORKING PLANTS

Ala., Paint Rock.—Brick and Tile.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga., general offices, Chattanooga,

Tenn., will erect plant to mfr. brick and tile; daily output 15,000 bricks. (See Miscellaneous Factories and Machinery Wanted.)

N. C., Hot Springs.—Bricks and Tile.—Shale-Clay Brick & Tile Co., I. B. Wilford, Prest., Asheville, N. C., is proceeding with erection of buildings for plant under direction of manager; initial daily capacity 30,000 common building and face brick; brick made from shale; later will add tile, fireproofing, etc., to product; machinery includes boiler, 12-in. x 16-in. heavy-duty coupled engine and stiff-mud brick machine. (Lately noted.)

N. C., Norwood.—Bricks.—Pee Dee Brick Co., capital stock \$10,000, incptd. by W. T. Brasington, T. Colson, J. H. Forbis and others.

D. C., Washington.—Bricks.—Silica Brick Co., capital stock \$60,000, incptd. by R. D. Marshall, 2464 Wisconsin Ave. N. W.; J. F. Greasing and J. G. Benton, Colorado Bldg.

S. C., Darlington.—Tile.—Darlington Brick & Tile Co., capital stock \$20,000, incptd. by Bright Williamson of Darlington and J. E. Blackman of Society Hill, S. C.

Tex., Athens.—Bricks.—Athens Pottery Co. will erect plant with daily capacity of 40,000 bricks.

W. Va., Newell.—Tile.—Kenilworth Tile Co., Claude Nense, Mgr., will erect kiln addition and other extensions; cost \$6500; construct pressroom and extensions to kiln shed and stockrooms.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Canal Export Coal Co., 720 Brown-Marx Bldg., organized; capital stock \$300,000; R. H. Elliott, Prest.; W. C. Lovejoy, Secy.; Chas. F. Hogue, Treas.; all of Birmingham; E. P. Kimbrough, V.-P., Greensboro, Ala.; will develop 400 acres coal land; daily output of equipment 1000 tons coal; not decided when to open machinery bids; lately noted incptd. (See Machinery Wanted.)

Fla., Jacksonville.—Tuscaloosa Coal & Land Co., capital stock \$50,000, incptd. by C. M. Fuller, Prest.; O. P. Woodcock, V.-P.; Frank E. Wood, Secy.

Ky., Floyd County.—Blackburn Bros., Fred Blackburn, Mgr., Auxier, Ky., leased coal lands and will develop; install electric plant; daily capacity 100 to 300 tons. (Address lately incorrectly stated as Winchester, Ky.)

Tenn., Knoxville.—Piedmont Coal & Coke Co. increased capital stock from \$15,000 to \$25,000; develop 2900 acres coal property; daily output 350 tons.

Va., Roanoke.—Ashless Coal Corp., authorized capital stock \$150,000, incptd. by L. N. Buford, Prest.; Hugh Buford, Secy.

W. Va., Charleston.—Griffith Coal Co., capital stock \$1,000,000, incptd. by F. W. Ogden, C. P. W. Dickinson, A. Widdowfield and others, all of Scranton, Pa.; to operate coal mines in Sherman Dist.

W. Va., Coalwood.—Carter Coal Co., Geo. L. Carter, Prest., Johnson City, Tenn., completing 600-ft. air shaft; constructing temporary tippie; soon arrange to build permanent tippie of all steel construction; plans electrical installation; daily capacity 5000 tons coal.

W. Va., Fairmont.—Monongalia Coal Co., capital stock \$500,000, incptd. by J. A. Clark, H. B. Clark, T. F. Robey and others.

W. Va., Palmer.—Blacksburg Coal Co., capital stock \$200,000, incptd. by H. C. Whitman of Palmer, Flora Ranson of Plymouth, Pa., and Chas. A. Frisbie of Moosic, Pa.

W. Va., War.—Warrior Coal Co. incptd. by W. T. Williams, J. T. Wilson of Bluefield, W. Va.; T. W. Truscott and Geo. Narrows of Charleston, W. Va., and H. E. Harman of Tazewell; to develop several hundred acres coal land.

CONCRETE AND CEMENT PLANTS

Mo., Kansas City.—Portland Cement.—Iola Portland Cement Co., Iola, Kans., will build \$1,000,000 plant with daily capacity 2000 barrels cement; purchased 26-acre site; obtained raw material from Delts Hill, 100 to 225 ft. high.

Tex., Victoria.—Silo.—Charles J. Perkins, Gen. Mgr. Diamond Concrete State Silo Co., Kansas City, Mo., will erect silo factory.

COTTON COMPRESSES AND GINS

Ala., Tusculumbia.—D. O. Matthews will erect 24-80-ft. cotton gin; daily capacity 100 bales. (Lately noted.)

Miss., Boyle.—S. C. Taylor will build plant to gin and bale cotton; install complete ginning equipment, including 150 H. P. boiler, 100 H. P. engine and press; lately noted. (See Machinery Wanted.)

Okl., Kenefick.—Farmers' Gin Co., capital stock \$10,000, incptd. by B. F. Bolling A. J. Blackman and J. C. Lewis.

Tex., Denison.—Chamber of Commerce is interested in erection of cotton gin; 4-stand; 70-saw capacity; will occupy half of city block; fireproof storage buildings.

Tex., Floresville.—Houston & Lichnovsky Gin Co. will erect gin; main building 38x144 ft.; cost about \$20,000; construction begun.

Tex., India.—India Gin Co., capital stock \$6500, incptd. by M. A. Carpenter, J. B. Moore and S. S. Hulbert.

Tex., Port Lavaca.—J. O. Hartzog purchased gin plant and will improve.

Tex., Rockwall.—People's Gin Co., capital stock \$6000, incptd. by T. B. Ridgell, John S. Mason and M. S. Bailey.

Tex., Van Alstyne.—Van Alstyne Gin Co., capital stock \$15,000, incptd. by R. M. Cannon, J. B. Moore and L. P. Walker.

COTTONSEED-OIL MILLS

N. C., Raleigh.—Raleigh Cotton Oil Co. has site of 5 acres and will erect plant; main building 100x210 ft.; cost of plant \$75,000; plans prepared.

Okl., Tishomingo.—C. T. Wright of Celina, Tex., and Geo. I. Baldwin of Dallas, Tex., interested in organizing company with \$25,000 capital stock to erect cold-press oil mill.

Tex., Texas City.—P. A. Fitzhugh and H. Bailey of Houston and others will establish 100-ton capacity cottonseed-oil mill and cottonseed products-handling plant costing about \$300,000; locate plant in second story of warehouse A (of Texas Transportation Co.) on water front; this additional story, provided for in plans, not built and will be first work undertaken; new construction to conform with general lines on which warehouse was built; reinforced concrete throughout; 155x500 ft.; floor space for mill, 139,500 sq. ft.; also will have seedhouse 200x200 ft. and hullhouse 200x70 ft., both fireproof; contracts for building material and machinery being let.

DRAINAGE SYSTEMS

Fla., Daytona.—City voted \$175,000 bonds for drainage and sewer system. Address The Mayor. (Lately noted.)

La., Kinder.—Kinder Drainage Dist. No. 2 voted \$30,000 bonds to construct canal system; drain about 30,000 acres; soon invite bids for construction.

Tenn., Dresden.—Middle Fork and Spring Creek Drainage and Levee Dist. of Weakley County, J. B. Overton, director, Greenfield, Tenn., will construct 3 canals from 20 to 30 ft. bottom and 8 to 10 ft. deep; also 2 levees from 8 to 11 ft. high, 40 ft. at base and 5-ft. crown; drain about \$500 acres on Spring Creek and Middle Fork Obion River, Weakley county; cost \$130,000; date of opening bids not determined. (Lately noted.)

Tenn., Jackson.—Madison County Comms., A. W. Stovall, Chrmn., will clear right of way 200 ft. wide and dig drainage canal 57,229 ft. long; about 1,046,765 cu. yds. earth to be removed; bids until Apr. 22; lately noted. (See Machinery Wanted.)

Tenn., Trenton.—Comms. Drainage Dist. No. 1 of Gibson county will receive bids until Apr. 15 for 1,164,000 cu. yds. dredging; Lund & Hill, Consult. Engrs., Little Rock, Ark. (See Machinery Wanted.)

Tex., Austin.—O. W. Finley, Ch. Engr., Ennis, Tex., is conferring with State Reclamation Engr. Stiles relative to forming 2 levee districts on Trinity River in Kaufman and Henderson counties below mouth of East Fork; will construct one levee about 19 mi. long, average height 8 ft.; drain about 14,000 acres of valley; soon vote on issuing \$145,000 bonds.

Tex., Rosenberg.—City, H. A. Mayer, Mayor, let contract to John W. Maxey, Houston, to construct drainage system; cost \$11,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

ELECTRIC PLANTS

Fla., Chipley.—Chipley Light & Power Co., E. H. Hale, Mgr., will install one 10-ton exhaust steam absorption plant costing about \$10,000; fireproof building, 50x90 ft., completed; Mr. Hale is also Engr.; previously noted. (See Machinery Wanted.)

Ga., Ball Ground.—City contemplates installation of electric-light plant and water-works. Address J. B. Roberts.

Ga., Columbus.—Stone & Webster Engr. Corp., Boston, Mass., plans to expend \$300,000 on improvements and extensions to Columbus Gas Light Co.'s electric-light plant and power plant and Columbus Street Railway; improvements at gas plant include gasholder, enlargement and extension to gas mains, increasing volume of gas; install motor generator at station No. 4, etc.

Ga., Cordele.—White Way Comm., Chamber of Commerce, Louis Spencer Daniel, Secy., invites bids on electric plant to operate 125 to 150 white-way posts of 300 c. p. each; have boiler; cost about \$5000; plant to include dynamo, engine, switchboard, generator and 900 ft. connecting wire to run from plant to beginning of white-way system; 5-lamp post preferred, weight about 500 to 600 lbs.; lately noted. (See Machinery Wanted.)

Ga., Macon.—City let contract at \$10,073.96 to F. M. Marshall to construct electrical building.

Ga., Rome.—Rome Ry. & Light Co. plans to increase capital stock from \$500,000 to \$1,000,000.

Ky., Louisville.—H. C. Tafel Electric Co., capital stock \$75,000, inceptd. by H. C. Tafel, Paul Tafel, W. A. Link and E. C. Monheimer.

La., Breaux Bridge.—City is considering electric-light plant; C. C. Rees, Mayor.

La., Jennings.—Jennings Light & Power Co. and Southern Heat & Light Co. combined as Jennings Gas & Electric Co.; G. B. Zigler, Prest.; J. F. Haber, Secy.

Md., Rock Hall.—City contemplates voting on \$10,000 bonds for electric-light plant. Address The Mayor.

Okla., Oklahoma City.—Ardmore Electric Ry. Co. (Geo. A. Craven and others) will build plant to cost \$150,000.

S. C., Society Hill.—Society Hill Power Co., capital stock \$4000, inceptd. by Bright Williamson of Darlington, S. C., and J. E. Blackman of Society Hill.

Tenn., Johnson City.—John W. Hunter advises: Arrangements being made to construct electric plant to furnish power for street railway and for domestic and manufacturing lighting and power; will petition for franchise.

Tex., Brownwood.—Texas Power & Light Co. contemplates installation of street-lighting system; cost \$15,000.

Tex., Hutto.—Hanstrom & Tinning will install machinery for electric-light plant.

Tex., San Angelo.—J. D. Sugg will install electric-light plant; cost \$100,000.

Tex., McAllen.—McAllen Ice, Light & Water Co., capital stock \$10,000, inceptd. by F. E. Osborne, R. E. Horn and J. T. Cardwell.

Tex., Corpus Christi.—Newburger, Henderson & Loeb, Philadelphia, Pa., purchased Corpus Christi Ice & Electric Co. and Heiny Electric Co.'s plants and will improve; extend electric lights to all outlying sections.

Tex., Dallas.—Dallas County Comrs. let contract at \$34,533 to Kinnison Bros., Dallas, to install electric power and lighting plant in county jail and Criminal Courts Bldg.; two 200 H. P. boilers with two 100 K. W. generators and engines; plans by A. T. Vick, Engr.; supervision of H. A. Overbeck, Archt., Dallas. (Lately noted.)

Tex., San Antonio.—San Antonio Gas & Electric Co. having plans prepared to increase size and capacity of plant on Conception Rd.; add about 80 ft. to south end of building; install electric generator of 5000 K. W., with sufficient boilers to supply power.

Va., Tappahannock.—Thomas B. Lee is interested in establishment of electric-light plant.

FERTILIZER FACTORIES

Ark., Argenta.—Union Seed & Fertilizer Co., capital stock \$3,750,000, organized; R. F. Munro, Prest.; F. Bosse, V.-P. and Treas.; C. O. Phillips, Secy.; offices at 27 Beaver St., New York; will continue cotton-oil mills, cotton gins and fertilizer plants heretofore operated by Union Oil Co.; American Cotton Oil Co. will continue cotton-oil refineries at St. Louis, etc.; N. K. Fairbank Co. will continue factories for cottonseed, lard compounds, soaps, washing powders, etc. (Union company lately noted inceptd., etc.)

Fla., Bassenger.—Osceola Supply Asso.

inceptd. by R. L. Pearce, W. P. Underhill, C. W. Hilliard and others to erect plant to mfr. fertilizer.

Tex., Houston.—Gulf Menhaden Co., 1604 Carter Bldg., organized with \$250,000 capital stock; will construct dock and plant to manufacture fish scrap and oil from menhaden; Bertram D. Lackey, Prest.; Geo. J. Wilson, V.-P. and Treas.; Geo. J. Brinton, Secy.; begin dock construction within 90 days and plant construction 60 days later.

FLOUR, FEED AND MEAL MILLS

Fla., Jacksonville.—Cumberland & Liberty Mills Co. increased capital stock from \$30,000 to \$50,000.

Ky., Clinton.—J. U. Kevil, Mayfield, Ky., will probably rebuild Star Mills, lately noted burned at loss of \$35,000.

Ky., Louisville.—Red Chief Mfg. Co. increased capital stock from \$7000 to \$10,000.

Md., Cambridge.—Cambridge Milling Co. increased capital stock from \$100,000 to \$200,000.

Tex., Wichita Falls.—Wichita Mills & Elevator Co., capital stock \$300,000, inceptd. by M. Lasker, L. Lasker and Frank Kell.

FOUNDRY AND MACHINE PLANTS

Ala., Tuscaloosa.—Railway Switches.—Morrison Frogless Switch Co., 519 American Trust Bldg., Birmingham, opens bids June 15 to erect plant; building 100x250 ft.; cost \$10,000; steel and concrete; opens bids July 15 to install machinery to mfr. frog and switch and kindred appliances; lately reported. (See Machinery Wanted.)

Fla., Tampa.—Boiler Shop.—Tampa Foundry & Machine Co. will erect boiler shop; cost \$12,000.

Mo., St. Joseph.—Structural Steel, etc.—T. W. Dodd, care of Chamber of Commerce, has plans for structural steel and fabricating iron works.

Mo., St. Louis.—Steel Pilots.—Cast Steel Pilot Co., capital stock \$60,000, inceptd. by Arthur T. Morey, Oliver T. Ledford and Fred Dieckmann.

Mo., St. Louis.—Street-Car Registers.—Automatic Register Co., C. H. Robinson, representative, Chicago, Ill., is reported to erect plant to manufacture street-car registers.

Mo., St. Louis.—Structural Iron.—Schurk Iron Works has designs by August F. Blanckaert for foundry to mfr. structural iron devices for apartments, churches, etc.; 106x280 ft.; front part 2 stories; remainder 1 story; raised skylights; 4 times floor space of present building.

S. C., Charleston.—Marine Repairs.—Valk & Murdoch Co., capitalization \$300,000, organized; Charles R. Valk, Prest.; J. Don Smith, V.-P.; will continue Valk & Murdoch Iron Works, removing plant to location on Cooper River; purchased 625x600-ft. site; will construct machine shop, foundry of brick construction, boiler shop of iron-frame construction, storehouse, marine railway, wharf and crane; let building contract to Charleston Engineering & Contracting Co. (Lately noted inceptd., etc.)

Tenn., Chattanooga.—Bridge Material.—Converse Bridge & Steel Co., capital stock \$40,000, inceptd. by R. O. Benner, O. J. Cope, M. C. Hasselle and others; continue established plant.

Tenn., Chattanooga.—Iron Work.—Chattanooga Iron Works, capital stock \$15,000, inceptd. by O. B. Stauffer, John Bauer, James F. Finley and others.

Tex., Ballinger.—Rotary Gin Filer.—R. B. Creasey, Prest. Creasey Rotary Filer Co., Kansas City, Mo., will install equipment for manufacturing Creasey automatic rotary gin filer.

Tex., Dallas.—Cotton Gins, Oil Mills, etc.—The Murray Co., manufacturer of cottonseed-oil mill and cotton-ginning machinery, increased capital stock from \$1,000,000 to \$1,250,000; does not contemplate making any improvements or enlargements to plants.

Va., Staunton.—Tools.—Warren Machine & Tool Co., capital stock \$5000, inceptd.; T. N. Durham, Prest.; F. J. Lyons, Secy., both of Warren, Pa.

W. Va., Fairmont.—Foundry, etc.—Company organized by H. L. Helntzelman, C. E. Hutchinson, J. M. Jacobs and others to mfr. moulds for glass works; will build foundry, machine shop, pattern-room, etc.

W. Va., Grafton.—Castings.—O. A. Heffner of Grafton and John H. Mayselles of Michigan have plans for castings foundry; reported cost \$100,000.

W. Va., Parkersburg.—Boilers, etc.—Donovan's Boiler Works, Hugh Donovan, Jr., Mgr., let contract to erect addition to factory. (Lately noted.)

GAS AND OIL ENTERPRISES

Fla., Jacksonville.—Florida Oil Co., capital stock \$50,000, inceptd.; J. A. Cranford, Prest.; L. L. Meggs, V.-P.; A. E. Adamson, Secy.

Fla., West Palm Beach.—Gas Plant.—City granted gas franchise to H. Roy Curningham; plant to be completed within two years; C. S. Anderson, Mayor. (Lately noted.)

Ga., Cordele.—Gas Plant.—W. E. Davidson, representing Chicago company, applied for gas franchise; for cooking and lighting.

Ga., Columbus.—Gas Plant.—Stone & Webster Engr. Corp., Boston, Mass., plans to expend \$300,000 on improvements and extension to Columbus Gas Light Co.'s electric-light and gas plant and Columbus Street Ry.; improvements at gas plant include gas holder, enlargement and extension of gas mains, increasing volume of gas; install motor generator at Station No. 4, etc.

Ga., Valdosta.—Oil Plant.—The Texas Company, New York and Houston, Tex., will construct distributing plant; 2 oil tanks of 18,000 gals. capacity each.

Ky., Louisville.—Gas Plant.—Louisville Gas & Electric Co. will erect boiler-room; concrete and steel; 108x27 ft.; cost \$125,000.

La., Jennings.—Jennings Electric Light & Power Co., Ltd., and Southern Heat & Light Co. combined as Jennings Gas & Electric Co.; G. B. Zigler, Prest.; F. N. Litton, Mgr.; J. F. Haber, Secy.

La., New Orleans.—Gas Plant.—Arkansas Riverbed Oil & Gas Co., Tulsa, Okla., applied for natural or manufactured gas franchise.

Md., Baltimore.—Gas Plant.—Philip L. Poe of Poe & Davies, N. W. Cor. Light and German Sts.; Edwin W. Poe, V.-P. Baltimore Trust Co., 25 E. Baltimore St.; S. Proctor Brady, York and Battery Ave.; Stuart S. Janney, 601 Title Bldg., and D. F. Mallory, 1010 Maryland Trust Bldg., propose to incorporate company with \$10,000,000 capital stock; petitioned Legislature for franchise to supply Baltimore with natural gas.

Mo., Kansas City.—Kansas City & Oklahoma Oil & Gas Co., capital stock \$50,000, inceptd. by E. Shukert, R. T. Crawford and W. H. Hill.

N. C., Gastonia.—Gas Plant.—Gaston County Gas Co., A. H. Nissley, Prest., 625 Stock Exchange Bldg., Philadelphia, Pa., is proceeding with construction of gas-generating plant and laying of street mains; R. H. Hamilton, Engr. (Previously noted.)

N. C., Raleigh.—Gas Plant.—Carolina Power & Light Co. has 3-acre site to erect coal-gas plant; main building of brick, 50x150 ft.; to contain coal-gas benches, holders, retorts, 2 boilers of 150 H. P. each, pumping and purifying apparatus; outside of building will be 3 purifiers; second building will be 2 stories; to contain meter shop, storage-house 50x95 ft., storage sheds for coal, coke and oxide; concrete floors; space will be left for additional equipment as it is needed for gasholders; by-products will be tar, coke and ammonia; cost of plant \$100,000; S. P. Cobb, New York, in charge of construction. (Lately noted.)

N. C., Wilmington.—Oil Plant.—Texas Oil Co., New York and Houston, Tex., will establish distributing plant on Castle Haynes Road.

Okla., Ardmore.—Chic-Choc Oil & Gas Co., capital stock \$60,000, inceptd. by G. A. Ramsey, C. M. Sarchet and H. C. Tate.

Okla., Ardmore.—Lane-Wallace Oil & Gas Co., capital stock \$150,000, inceptd. by W. J. Lane of Ardmore, J. E. Wallace and John A. Waldrop of Fort Worth, Tex.

Okla., Ardmore.—A. & F. Oil & Gas Co., capital stock \$25,000, inceptd. by Sara Adams, Ray G. Poland and I. R. Mason.

Okla., Ardmore.—Paloma Oil Co., capital stock \$50,000, inceptd. by Roy T. Potter of Gainesville, Tex.; R. P. Poland and D. J. Grigsby of Ardmore.

Okla., Ardmore.—Prairie King Oil Co., capital stock \$30,000, inceptd. by C. F. Stabilefield of Yazoo City, Miss.; William Heard of Muskogee, Okla., and V. Bronaugh of Hugo, Okla.

Okla., Ardmore.—Liberty Bell Oil & Gas Co., capital stock \$10,000, inceptd. by F. S. Hyden and W. A. Easley of Ardmore, and Ab. J. Harris of Gainesville, Tex.

Okla., Gage.—Gage Oil & Gas Co., capital stock \$5000, inceptd. by J. H. Hubbard, C. A. Lamb and J. A. Holt.

Okla., Guthrie.—Oklahoma Development Co., capital stock \$10,000, inceptd. by John H. Burford, John Hartmann and L. I. Beland.

Okla., Hennessey.—Fidelity Oil & Gas Co., capital stock \$30,000, inceptd. by W. R. Titter-

ington of Hennessey, Lyman Hixon and H. H. Shaubrook of Bison, Okla.

Okla., Honiny.—Hominy Light & Gas Co. will construct 8 mi. gaspipe line; 3, 4 and 6 in. pipe; rock pressure; well drilled; W. S. Burwick, Engr., Cushing, Okla.; lately noted inceptd. with \$35,000 capital stock by Gus Hoerton and others. (See Machinery Wanted.)

Okla., Idabel.—McCurtain County Oil Co., capital stock \$40,000, inceptd. by H. C. Morris, J. H. Crook, C. R. O'Neal and others.

Okla., Lawton.—Modern Oil & Gas Co., capital stock \$25,000, inceptd. by S. Epstein, T. M. Keady and J. M. Hammond.

Okla., McAlester.—Coeur D'Leon Oil & Gas Co., capital stock \$25,000, inceptd. by F. M. Fry and R. F. McCrory of McAlester and R. E. Echols, Elk City, Okla.

Okla., Mead.—Mead Oil & Gas Co., capital stock \$5000, inceptd. by F. G. M. Jackson, R. M. Creswell and Johnson Krouse.

Okla., Muskogee.—Abso Pure Oil & Gas Co., capital stock \$3000, inceptd. by Frank Thompson, Henry Wenzel and Charles M. Simpson.

Okla., Muskogee.—Midumo Oil Co., capital stock \$1500, inceptd. by Frank Thompson, C. S. Evans and Henry Wenzel.

Okla., Muskogee.—Glenalvon Oil Co., capital stock \$25,000, inceptd. by Geo. W. Sterling, L. W. Griffith and R. R. Clark.

Okla., Muskogee.—Oklahoma Petroleum Co., capital stock \$1,200,000, inceptd. by C. N. Haskell of Muskogee, Jos. L. Hall of Cincinnati, O., and Jas. M. Satterfield of Dover, Del.

Okla., Oklahoma City.—Lakansa Oil Co., capital stock \$100,000, inceptd. by Vincent G. Shinkle of Tulsa, W. C. Briskey and L. C. Towler of Oklahoma City.

Okla., Shawnee.—Sixty Oil & Gas Co., capital stock \$10,000, inceptd. by I. S. McIntyre, P. N. Stuart and Alex. Fisher.

Okla., Shawnee.—Old Colony Oil Co., capital stock \$30,000, inceptd. by J. M. Byler, A. S. Pace and B. J. Collins.

Okla., Sulphur.—Luster & Morris Oil Co., capital stock \$16,000, inceptd. by J. C. Luster, J. E. Morris, Geo. M. Nicholson and others.

Okla., Stigler.—Holly-Arke Oil & Gas Co., capital stock \$30,000, inceptd. by G. A. Holley, W. L. Stocker and J. B. Slyender.

Okla., Tahlequah.—Murchison Oil Co., Box 428, will develop oil wells; no pipe lines contemplated for 90 days; will open bids for drilling, etc., in about 30 days; engineer not appointed; lately noted inceptd. with \$6000 capital stock by H. M. Morris and others. (See Machinery Wanted.)

Okla., Tulsa.—Edna Petroleum Co., capital stock \$5000, inceptd. by Robt. J. Boone, B. B. Calk and B. Caldwell.

Okla., Tulsa.—Fourth Floor Oil & Gas Co., capital stock \$10,000, inceptd. by J. E. Crosbie, J. E. Wade and John D. Freeman.

Okla., Tulsa.—Forrester Oil & Gas Co., capital stock \$100,000, inceptd. by T. H. Forrester, W. D. Mahoney of St. Louis, Mo., and H. B. DeFord of Catoosa, Okla.

Okla., Tulsa.—Markham Oil Co., capital stock \$10,000, inceptd. by E. I. Irwin of Tulsa, Okla., and Geo. H. Anderson of Oklahoma City.

Tex., Brownwood.—Gas Plant.—Hart & Son, Needosha, Kan., have natural-gas franchise; will pipe gas from gas field, 12 mi. from Brownwood.

Tex., Mexia.—Trinity Valley Oil & Gas Co., capital stock \$200, inceptd. by Jesse W. McClelland, Roscoe Cook and B. S. Smith.

Tex., Sour Lake.—Falloure Oil Co., capital stock \$3000, inceptd. by J. P. Falloure, J. K. Yeary and P. J. Rutledge.

Tex., Wichita Falls.—Chenault Lynn Drilling Co., capital stock \$10,000, inceptd. by N. B. Chenault, J. H. Lynn and C. V. Chenault.

Va., Salem.—Gas Plant.—J. Elliott Hall, Mgr. Appalachian Coal Land Co. of Bluefield, W. Va., is reported interested in erection of gas plant; applied for franchise.

W. Va., Charleston.—Lucky Boy Oil & Gas Co., capital stock \$25,000, inceptd. by Ernest Tomel, W. A. Mahan, L. S. Casci and others.

ICE AND COLD-STORAGE PLANTS

Ala., Dothan.—R. D. Crawford will install small refrigerating plant to be operated electrically. (See Machinery Wanted.)

Fla., Tampa.—Gillett Lumber & Transportation Co. will erect ice factory; cost \$4000.

Mo., Columbia.—Hetzler Bros. will install refrigeration plant in connection with retail market; plans and specifications by Robt. M. McCandlish Engineering Co., 723-724 Midland Bldg., Kansas City, Mo. (See Miscellaneous under Buildings Proposed.)

Okla., Ardmore.—Oklahoma & Texas Ice Refrigeration Co., capital stock \$60,000, in-

corporated by H. S. Cox, H. T. Hunt and E. Dunlop.

Okla., El Reno.—People's Ice Co., capital stock \$1000, inceptd. by R. M. K. Wooten, J. T. Aust of Chickasha and H. L. Fogg.

Tex., Corpus Christi.—Newburger, Henderson & Loeb of Philadelphia, Pa., purchased Corpus Christi Ice & Electric Co.'s plant and will improve.

Tex., McAllen.—McAllen Ice, Light & Water Co., capital stock \$10,000, inceptd. by F. E. Osborne, R. E. Horn and J. T. Cardwell.

IRON AND STEEL PLANTS

Va., Belle Isle, P. O. Richmond.—Rolling Mills.—Old Dominion Iron & Nail Works Co. rearranging location of rolling mills with view to operation by electric motors; heretofore driven by direct water-power; improvements cost about \$50,000.

LAND DEVELOPMENTS

Ark., Wynne.—Cross Country Land Co., capital stock \$10,000, inceptd.; T. F. Sexton, Pres.; Ben Wofford, Secy.

Fla., De Soto County.—Interstate Land Co., 1224 Hamilton National Bank Bldg., Chattanooga, Tenn., organized with W. H. List, Pres.; E. M. Allen, V.-P., and W. E. Wilkinson, Secy.-Treas.; will develop 2500 acres and grow citrus fruits. (Lately noted inceptd. with \$30,000 capital stock.)

Fla., Fort Lauderdale.—Thos. E. Frederick, Engr., Box 371, advises regarding his connection with Okeechobee Fruit Lands Co. in developing 18,000 acres; Mr. Frederick was awarded contract by State to sectionize about 31,000 acres, setting 1/4-mi. stakes on 4 sides of each section; contract enables company to have immediate survey of its property and marks first step in this section of glades toward location of farming lands; at same time, subdivision of 18,000 acres is being made, this subdivision to be in sections previously located by Mr. Frederick and divided into 40-acre tracts; 2 contracts comprise survey of about 50,000 acres.

Fla., Tarpon Springs.—Pinellas Realty Co., Jas. Murphy, Pres., will develop 12 acres within corporation limits; construct hard streets and cement walks and erect number of dwellings; expend \$10,000; all contracts let. (Lately noted inceptd. with \$15,000 capital stock.)

Ga., Milledgeville.—Edwards & Patterson are planting 50-acre tract in paper-shell pecans. (See Ky., Madisonville.)

Ky., Madisonville.—Edwards & Patterson are establishing pecan orchard and nursery; also planting 50-acre tract at Milledgeville, Ga., in paper-shell pecans.

La., New Orleans.—Washington Land Co., capital stock \$10,000, inceptd. by E. B. Rowan, E. W. Rogers and Ephraim Rosenberg.

La., New Orleans.—New York & Louisiana Farms Co., capital stock \$75,000, inceptd. by B. C. Lincoln, G. P. Fuller, M. W. Meek and Roy J. Key.

La., New Orleans.—O. K. Farms, capital stock \$8000, inceptd.; Leo A. Marrero, Pres.; L. H. Marrero, Jr., V.-P.; Andrew Fitzpatrick, Secy.

La., New Orleans.—Teche Land Development Co., capital stock \$50,000, inceptd. by Joseph Birg, E. V. Weems, W. W. Sutcliffe and others.

Md., Mt. Washington.—McMahon Bros. Quarry Co., Law Bldg., Baltimore, Md., purchased 25 acres on Falls Rd. and will develop North Mt. Washington, residential suburb.

N. C., Belmont.—Belmont Real Estate Co., capital stock \$50,000, inceptd. by R. L. Stove, A. C. Lineberger, S. P. Stove and others.

N. C., Eagle Springs.—Carolina Vineyards, Inc. (main office, Pinehurst, N. C.) organized with Geo. Gray Zaleriskie, Pres., and Angus E. Mason, Secy.-Treas.; will develop 25 acres near Eagle Springs for cultivation of scrupernong grapes. (Lately noted incorporated with \$25,000 capital stock.)

N. C., Badin.—Badin Heights Land Co., authorized capital stock \$100,000, inceptd. by J. D. Dorsett, A. J. Marshburn of Spencer, N. C., and M. F. Hatcher of Salisbury, N. C.

N. C., Wilmington.—Dixie Land & Development Co., capital stock \$100,000, inceptd. by G. A. P. Bowman, J. D. Hedrick and Ethel T. Bowman.

S. C., Charleston.—Coast Realty Corp., capital stock \$35,000, inceptd.; F. E. Thomas, Pres.; J. H. Gotjen, Secy.

S. C., Salem.—Salem Farms Co., capital stock \$5000, inceptd.; B. G. Pringle, Pres.; M. T. Evans, V.-P.; A. J. Evans, Secy.

S. C., Spartanburg.—Martin-Baty Lumber Co., capital stock \$20,000, inceptd. by J. B.

Martin of Spartanburg, H. B. Mercerau and D. V. Baty of Johnson City, Tenn.

Tenn., Nashville.—Upper Cumberland Realty Co., 1006 Stahlman Bldg., organized with T. C. McCampbell, Pres.; E. B. Boyd, V.-P.; T. B. Boyd, Treas., and J. D. Van Hooser, Secy.; general real estate and encourage Northern immigration and colonization of undeveloped lands in Upper Cumberland district. (Lately noted inceptd. with \$5000 capital stock.)

Tex., Corpus Christi.—Corpus Christi Co-operative Farm Co. organized with S. L. Kostoryz, Pres.; Edwin Flato, V.-P.; Longin Folda, Treas., and J. W. Pittman, Secy.; purchased 3000 acres in Neuces county, 5 mi. south of Corpus Christi, and will develop for farming; estimated cost \$150,000; open bids for machinery, materials, etc., in Apr.; S. L. Kostoryz, Engr. (Lately noted inceptd. with \$150,000 capital stock.)

Va., Norfolk.—Columbia Holding Corp., capital stock \$15,000, inceptd.; D. Carpenter, Pres.; R. S. Jeffries, Secy.

Va., Richmond.—Greenwood Villa Co., capital stock \$10,000, inceptd.; W. S. Sytle, Pres.; M. A. Sytle, Secy.

W. Va., Craigmoor, R. F. D. from Mt. Clare, Elk Valley Land Co., 716-717 Goff Bldg., Clarksburg, W. Va., inceptd. with \$50,000 capital stock; Peter I. Lynch, Pres.; Truman J. Lynch, Secy.; will develop 750 acres; engage in general farming and stock raising, mfr. lumber and operate for coal, oil and gas.

LUMBER MANUFACTURING

Ark., Ison.—J. F. Light, Calico Rock, Ark., purchased tract of ash and hickory timber; will erect sawmill.

Ala., Mountain Creek.—Vida Lumber Co. purchased 600 acres timber land; will cut and manufacture into lumber.

Fla., De Funiak Springs.—Harbeson Lumber Co., Carriere, Miss., reported to erect sawmill.

Ga., Kingston.—Kingston Lumber Co. will build planing mill.

La., Lottie.—Howard Cole and J. E. Henderson, 1 Wall St., New York, purchased 10,000 acres virgin timber land in Pointe Coupee parish; improvements to include general store, railroad and logging equipment; materials, machinery, etc., purchased. (Lately noted under Land Developments.)

La., Walker.—Clark & Beckley of Doyle, La., will erect sawmill.

Miss., Bogue Chitto.—Central Lumber Co., Brookhaven, Miss., purchased and is remodeling plant of B. E. Brister Sawmill Co.; purchased boilers.

Miss., Canton.—J. D. Coney of Hazlehurst Lumber Co. and L. O. Crosby of Crosby-Bonds Lumber Co., Brookhaven, Miss., will erect sawmill.

Miss., Orvisburg.—Edward Hines Lumber Co., Chicago, is reported to rebuild burned lumber mill.

Mo., Concordia.—Concordia Lumber Co., Fullerton Bldg., St. Louis, Mo., inceptd. with \$3000 capital stock; remodel building; bids opened Apr. 1; Wm. Pfeffer, Pres.; Lyman E. Klotz, V.-P.; Otto T. Pfeffer, Secy.-Treas.; Harry Althide, Mgr.

N. C., Garland.—Garland Lumber Co., John A. Mills, receiver, will rebuild plant reported burned at estimated loss of \$25,000; erect 3 drykilns, 20x100 ft., ordinary construction; install fast-feed flooring machine, rip saw and 80 H. P. engine; daily capacity, 40,000 ft. North Carolina and yellow pine. Address machinery proposals to C. J. Morrow. (See Machinery Wanted.)

N. C., Mebane.—Building Materials, etc.—Miles-Nicholson Lumber Co. organized; W. M. Miles, Pres.; J. W. Nicholson, Secy.; D. A. White, V.-P.; deal in lumber and building materials, etc. (Lately noted inceptd. with \$25,000 capital.)

N. C., Swain County.—Luffy Lumber Co., capital stock \$50,000, inceptd. by Clarence C. Lantz of Asheville, N. C.; Earl M. Lantz and H. S. Whetzel of Kingwood, W. Va.; Claud Maxwell of Clarksburg, W. Va., and others.

S. C., Anderson.—Townsend Lumber Co., capital stock \$20,000, inceptd. by F. Keith Provost, J. M. Evans and J. B. Townsend; to continue established plant; erect corrugated iron building with larger floor space than present structure; install all machinery in one building.

Tenn., Maryville.—G. N. Nixie & Son will build planing mill. (Lately incorrectly noted under Tenn., Marshall.)

Tenn., Memphis.—Four States Land & Timber Co., capital stock \$50,000, inceptd.; Ernest Parham, Pres.; to develop timber lands in Mississippi, Tennessee, Arkansas and Alabama.

Tex., Huntsville.—Huntsville Lumber Co. organized with J. G. Ashford, Pres., and W. H. Randolph, Secy.-Treas.; lately noted inceptd. with \$10,000 capital stock. (See Machinery Wanted.)

W. Va., Craigmoor, R. F. D. from Mt. Clare, Elk Valley Land Co., 716-717 Goff Bldg., Clarksburg, W. Va., contemplates manufacturing lumber. (See Land Developments.)

METAL-WORKING PLANTS

Mo., Kansas City.—Specialties.—Metal Specialty Co., capital stock \$30,000, inceptd. by A. H. McKinley, A. J. Davies and John F. Kendig.

MINING

Ala., Shannon.—Iron.—Gulf States Steel Co., Brown-Marx Bldg., Birmingham, determined on daily capacity 2000 tons iron ore for development Shannon property; 1604 acres; Engr. A. H. Witt, American Trust Bldg., Birmingham. (Previously reported purchasing this property, etc.)

Ark., Haskell.—Sand and Gravel.—Haskell Sand & Gravel Co., capital stock \$10,000, inceptd.; J. G. Opitz, Pres.; H. J. Archer, V.-P.; H. T. Quentz, Secy.

La., New Orleans.—Gold, Silver, etc.—Minor C. Keith, Pres. United Fruit Co., planning organization company with several million dollars capital to establish plant for reduction and refining gold, copper, silver and other ores from Chili, Bolivia, Peru and Ecuador.

Mo., Joplin.—Lead and Zinc.—Voegel Mining Co. will develop Coats & Orr mine and 120-acre lease at Thoms Station camp.

Mo., Joplin.—Charles H. Mining Co., capital stock \$2000, inceptd. by H. E. Sewell, C. E. Hart and W. E. Craig.

Mo., Joplin.—Lead and Zinc.—Mossback Land & Mining Co., capital stock \$18,000, inceptd. by John C. Guilan of George City, A. E. Spencer and C. C. Spencer of Joplin.

Mo., Ste. Genevieve.—Limestone.—Ingalls Stone Co., capital stock \$50,000, inceptd. by Charles C. Ingalls of Bedford, Ind.; Arthur Schwarzenbach of South Orange, N. J.; Melville B. Hall of St. Louis and others. (This is quarry K. F. Gill was lately noted to develop.)

N. C., Lime Rock.—Lime.—Lime Rock Lime Co., authorized capital stock \$50,000, inceptd. by A. F. Moses, W. H. Maslin, A. A. Mayers and others.

Tenn., Knoxville.—Gold.—Southern States Gold Mining & Metal Recovery Co. inceptd.; represented by Arch Williams, 1012 Rector Bldg., Chicago.

Tenn., Knoxville.—Southern Minerals Co. inceptd.; represented by Cornick, Frantz, McConell & Seymour.

Tex., Freeport.—Sulphur.—Freeport Sulphur Co. (S. M. Swenson & Sons, 37 Wall St., New York) will construct canal from Brazos River near Freeport, south to sulphur mines at Bryan Heights; divert river and utilize in development sulphur deposits; let contract E. M. Dahlby, Houston; canal about 3 1/2 mi. long, 10 ft. deep, 10 ft. wide at bottom and 30 ft. wide at top; 3,500,000 cu. yds. excavation; capacity 27,720,000 gals. water; regulate water supply in canal by pumping station at junction canal and river; not effected by change in river level; pumping plant operated by electricity generated at central power station lately noted; Brazos River water to be treated at Bryan Heights, superheated at 100 lbs. pressure to 357 degrees Fahr. and forced into sulphur rock formation at 150 lbs. pressure; reservoir with capacity 25,000,000 gals. water, now in use at mines, will, after completion Brazos water canal, be used solely for boiler water in superheated water plants, where 14,000 steam H. P. can be developed; E. B. Sandilands, Govt. Engr., connected with Galveston U. S. Engr. Office, making field survey at mouth of Brazos River. (Company's plans for further developing sulphur mines heretofore detailed.)

Tex., Urbana.—Gravel.—Urbana Gravel Co., 14 Main St., Houston, Tex., is installing additional machinery. (Lately noted under Bank and Office Buildings at Houston, Tex., as to erect offices, crane and bins.)

West Virginia.—Michigan-Evans Virginia Land & Mining Co., capital stock \$100,000, inceptd. by Herbert E. Latter, Wm. J. Maloney and Oscar J. Reichard, all of Wilmington, Del.

MISCELLANEOUS CONSTRUCTION

D. C., Washington.—Block Signals.—Southern Ry. B. Herman, Chief Engr., M. W. Washington, will install automatic block signals on 150 mi. double track, to include following lines: Amherst to Whittles, Va., 57.3 mi.; Atlanta to New Holland, Ga., 53.46

mi.; Howell (Atlanta) to Austell, Ga., 15.5 mi.; Clitico (Chattanooga) to Ooltewah, Tenn., 13.4 mi., and Danville, Va., to Pelham, N. C., 9.3 mi.; modern upper quadrant, 3 position type.

Ga., Savannah.—Steamship Terminals.—Ocean Steamship Co., Wm. H. Pleasants, Gen. Mgr., Pier 35 North River, New York, having plans and specifications prepared by J. G. Basinger, Engr., New York, to construct terminals; concrete substructure and steel superstructure; fireproof; rumored that cost will be about \$800,000. (Lately noted.)

Ga., Savannah.—Coal-storage Plant.—Atlantic States Coal & Coke Co. (subsidiary to Clinchfield Fuel Co., Spartanburg, S. C.), Wesley Merritt, representative, Galveston, Tex., will construct coaling station on Hutchinson Island; construct coal chute and trestle, with devices for handling coal.

Mo., Kansas City.—Nattorium.—Kansas City Bay-Ocean Surf Nattorium Co. organized by W. W. Hunt and others; to erect surf bathing nattorium; tank finished in white tile; dressing-rooms on each side; hot and cold shower baths, laundry machines, men's clothing pressing machines, women's hair drying machines, etc.; produce white-caps at end of tank by means of two plungers throwing 5 ft. wave against bathers; sand beach receive rolling breakers at end; install air filtering process.

S. C., Charleston.—Dock.—Chamber of Commerce proposes to construct dock; concrete construction; cost about \$200,000.

S. C., Charleston.—Coal Terminals.—Holston Corp. (Carolina, Clinchfield & Ohio Ry.), Ward Crosby, Chief Engr., Johnson City, Tenn., requested bids on 600,000 yds. dredging; has not closed contract; understood this is preparatory to constructing terminals; these terminals previously reported as to include storage bins for 650,000 tons coal, machinery for loading and unloading vessels, etc.; plans not far enough advanced at present to state latest decision as to details. (Previously noted.)

Tenn., Chattanooga.—Wharf.—City will purchase 100 ft. additional water front property and enlarge wharf facilities; Robert Hooke, City Engr.

Tex., Austin.—Wharf.—City will construct wharf 600 ft. long above dam on river front; will park river front. Address The Mayor.

Tex., Freeport.—Canal.—Freeport Sulphur Co. (S. M. Swenson & Sons, 37 Wall St., New York) let contract E. M. Dahlby, Houston, to construct canal 3 1/2 mi. long from Brazos River near Freeport, south to sulphur mines at Bryan Heights, where river's waters will be utilized in connection with development of sulphur deposits. (See Mining.)

MISCELLANEOUS ENTERPRISES

Fla., Miami.—Yacht Repairs.—Geo. J. Pilkington, P. O. Box 453, is having plans prepared by C. A. Edelvard of Miami for plant to store and repair yachts over basins; shop 180x60 ft.; mill construction; 5 basins, 225x65 ft.; electric motors on all machines; cost of equipment \$1800. (Lately noted.)

Fla., Pensacola.—Laundry.—Perfection Laundry, R. M. Merritt, Mgr., will rebuild plant; bids asked at once; install machinery; lately noted damaged by fire. (See Machinery Wanted.)

Fla., St. Petersburg.—Laundry.—Superior Laundry Co. will erect laundry; 60x90 ft.; 2 stories; concrete; install dry cleaning and lye works.

Ky., Covington.—Engineering.—Bell Construction Co., capital stock \$5000, inceptd.; H. K. Bell, Pres.; M. S. Bell, Secy.-Treas.; will contract for engineering and construction work.

Ky., Richmond.—Laundry.—Normal City Laundry Co., capital stock \$25,000, inceptd. by G. W. Goodloe, Eugene Miller and J. J. Greenleaf.

Md., Baltimore.—Laundry.—Elite Laundry (United Laundries Co.), Greene and Fayette Sts., has plans by Clyde N. Frix, 1523 Munsey Bldg., Baltimore, for plant at Eutaw and Biddle Sts.; 3 stories; 125x150 ft.; steel and concrete; fireproof. (Lately noted.)

Md., Easton.—Farm Products.—Talbot Produce Exchange organized with M. B. Nichols, Pres.; W. H. Kemp, V.-P.; R. R. Spring, Secy., and McKenzie Goldsborough, Treas.; deal in livestock and farm products.

Miss., Jackson.—Dairy.—W. H. Highly of Los Angeles, Cal., purchased (from Black River Land Co.) 1640 acres, and will establish dairy and stock farm.

Mo., Kansas City.—Dairy.—Missouri Dairy Co., 1207-1209 Locust St., purchased plant of Standard Milk Co.; making improvements

under plans, specifications and supervision of Robt. M. McCandlish Engineering Co., 723-724 Midland Bldg., Kansas City, Mo.

Mo., King City—Seed.—Berryman & Maupin Seed Co., capital stock \$30,000, inceptd. by W. H. Berryman, A. P. Maupin and Minerva Maupin.

Mo., Poplar Bluff—Plumbing, etc.—Morrison Plumbing & Sheet Metal Co., 4th and Cedar Sts., organized with H. J. Morrison, Pres.-Mgr.; E. S. Howard, V.-P.; L. I. Morrison, Secy.-Treas.; succeeds H. J. Morrison, engaging in plumbing, steam and water heating, sheet metal work, etc. (Lately noted inceptd. under Metal-working Plants with \$15,000 capital stock.)

Mo., St. Louis—Construction.—Wimmer Contracting Co., capital stock \$10,000, inceptd. by W. L. Wimmer, Mary O. Wimmer, both of East St. Louis, Ill.; H. H. Wheeler and others.

N. C., Asheville — Laundry. — Asheville Steam Laundry Co. (J. J. and A. J. Nichols) will erect laundry; 80x100 ft.; 2 stories and basement; brick; stone foundation; first floor for offices, second for finishing department; basement will contain 125 H. P. boiler and supply-rooms; cost about \$10,000; purchased machinery of Asheville Laundry Co. and will install about \$10,000 worth new machinery. (Lately noted.)

N. C., Concord—Laundry.—Cabarrus Laundry Co. purchased plant of Concord Laundry Co.; will organize company with T. D. Maness, Pres.; R. E. Ridenhour, Secy.; install laundry in Ridenhour Bldg.

N. C., Henderson—Printing.—Jones Stone Printing Co., capital stock \$20,000, inceptd. by P. T. Jones, Bettie G. Jones and Mark H. Stone.

N. C., Newbern — Bottling. — Chautauqua Mineral Springs Co., capital stock \$50,000, inceptd. by D. E. Henderson and others.

N. C., Wilmington—Fishery.—C. C. Chabourn purchased plant of Ocean Fisheries Co. on Cape Fear River, including about 60 acres, building, tools, machinery, etc.

Okla., Muskogee — Plumbing. — Phoenix Plumbing Co., capital stock \$2500, inceptd. by Joseph C. Hamilton of Muskogee, L. M. Lane and James H. Sykes of Tulsa, Okla.

S. C., Anderson—Fire Extinguishers.—Pyrene Co. of South Carolina organized with M. M. Mattison, Pres.; A. L. Smethers, V.-P.; H. B. Harper, Secy., and C. C. Dargan, Treas.-Mgr.; is distributing company for Pyrene fire extinguishers in South Carolina. (Lately noted inceptd. with \$20,000 capital stock, under Miscellaneous Factories.)

S. C., Fork—Hardware and Furniture.—Fork Hardware & Furniture Co., capital stock \$2000, inceptd.; B. R. Roberts, Pres.; N. N. Schofield, V.-P.; F. M. Edwards, Secy.

S. C., Kings Creek.—White Diamond Lithia Springs Co., capital stock \$15,000, inceptd. by J. A. Carroll, J. N. Nesbitt and P. V. Gaffney, all of Gaffney, S. C.

S. C., Mullins—Hardware.—Mullins Hardware Co., capital stock \$110,000, inceptd. by E. T. Hughes, Henry Mullins and W. McG. Buck.

Tenn., Chattanooga—Transfer.—Main Street Transfer Storage Co., capital stock \$5000, inceptd. by J. R. Owings, J. S. Lamb, F. G. Crabtree and others.

Tenn., Knoxville — Publishing. — Knoxville Citizen Printing & Publishing Co., 519 Union St., will install printing plant costing \$10,000; building 2 stories; 20x75 ft.; mill construction. (Lately noted.)

Tenn., Memphis — Printing. — Heberling Printing Co., capital stock \$10,000, inceptd. by R. P. Heberling, V. P. Smith, P. J. Samuels and others.

Tenn., Memphis — Transfer. — Southern Transfer Co., capital stock \$5000, inceptd. by C. E. Davidson, I. E. Calhoun, E. A. Myers and others.

Tenn., Shelbyville—Laundry.—D. R. Tope and C. W. Bills will establish laundry; machinery purchased.

Tex., Austin—Printing.—Austin Statesman has contracted for \$20,000 office and printing building.

Tex., San Antonio—Supply.—Southwestern States Supply Co., capital stock \$25,000, inceptd. by Edw. Norris, D. G. Summer and P. S. Pappo.

Va., Chincoteague Island—Fishing.—Salt Water Fish Co., capital stock \$10,000, inceptd. with D. J. Wheaton, Pres.-Treas.; K. J. Jester, Secy.; Elmer Watson, Mgr.; cost of fish grounds, nets, boats, etc., \$5000 to \$7000.

Va., Staunton—Cleaning and Polishing.—Roby Cleaning & Polishing Co., capital stock \$50,000, inceptd.; J. A. Bell, Pres.; W. A. Bell, Secy.

W. Va., Clarksburg—Dairy.—Sturm Dairy

Co., capital stock \$10,000, inceptd. by P. Clyde Sturm and J. B. Supler of Clarksburg, Arthur M. Sturm of Enterprise, W. Va., and others.

MISCELLANEOUS FACTORIES

Ala., Birmingham.—Beggs Mfg. Co., capital stock \$1500, inceptd.; J. P. Beggs, Pres.; V. S. Elliott, Secy.; Robert J. Wheeler, V.-P.

Ala., Birmingham—Ice-cream.—Furnas Ice-Cream Co., capital stock \$6000, inceptd.; Robt. W. Furnas, Pres.; J. M. Antrim, V.-P.; A. E. Jones, Secy. (Lately noted having purchased Lee Ice-Cream Co., reported to add new machinery, etc.)

Ala., Paint Rock—Crushing Plant.—Alabama Lime & Stone Co., general offices at Chattanooga, Tenn.; H. M. Smith, secy., Rome, Ga., will build plant; install machinery to mfr. stone, grind agricultural limestone, hydrated and bulk lime, cement brick and drain tile; daily output, 40 tons each crushed stone and limestone, 15,000 bricks and 600 bbls. lime. (See Machinery Wanted.)

D. C., Washington—Bakery.—Corby Bros., 2305 Georgia Ave. N. W., will expend \$12,000 in improvements to plant.

Fla., Jacksonville—Syrup.—Alabama-Georgia Syrup Co. (L. B. Whitfield of Montgomery, Ala.) is reported to erect syrup refinery.

Fla., Miami—Bakery.—John Seybold will erect bakery; 3 stories; 50x150 ft.; Italian architecture; cost \$30,000; Geo. L. Pfeiffer, Archt.

Fla., Tampa—Cigar Factory.—Arguelles and Lopez Bros. have plans by A. H. Johnson, Tampa, for addition to cigar factory; 13x32 ft.; ordinary construction; gravel roof; no heating plant; cost \$5000.

Ky., Butler—Creamery.—Butler Creamery Co. increased capital stock from \$5000 to \$12,000.

Ky., Dawson Springs—Bottling.—Dawson Springs Bottling Co. let contract to erect bottling plant; 3 stories; brick; 70x120 ft.

Ky., Louisville—Gas Appliances.—Brennan Natural Gas Appliance Co. organized with L. J. Brennan, Pres.; offices at 245 E. Market St.

Ky., Louisville—Livestock Remedy.—Continental Livestock Remedy Co., capital stock \$15,000, inceptd. by T. W. Scott, F. D. Keithley and C. Oestreich.

La., Algiers—Shirts.—Scherr Mfg. Co., New Orleans, La., contemplates establishing plant.

La., New Orleans—Cigars.—M. Trelles & Co. organized with M. Trelles, Pres., to erect cigar factory.

La., New Orleans—Sugar Mill.—Drewes Sugar Co., capital stock \$100,000, inceptd. by Otto M. Drewes, L. E. Robinson, M. W. Rainold and F. E. Rainold.

Md., Cambridge—Shirts, etc.—Adkins Mfg. Co. organized with Archibald Adkins, Pres.; John H. Burgess, Jr., Secy.

Md., East Brooklyn — Asphalt. — Asphalt Products Co., John H. Zink, Secy., will rebuild plant noted burned at loss of \$20,000.

Mo., St. Louis—Tools.—B. L. Fry Mfg. Co., capital stock \$10,000, inceptd. by Ben L. Fry, John L. Fry and R. M. Homer.

Mo., St. Louis—Varnish Protector.—Fineline Mfg. Co., capital stock \$20,000, inceptd. by T. W. Carter, D. H. Morische and E. L. Foth; to manufacture varnish protector.

Mo., St. Louis—Cigars.—Joachim Cigar Co., capital stock \$12,500, inceptd. by Harry J. Joachim, Ray Joachim, Sarah Mayerson and Charles G. Maynard.

Mo., St. Louis—Floor-Shine.—Floor-Shine Mfg. Co., capital stock \$15,000, inceptd. by C. F. McKinley, Adolph Klieforth, Edw. H. Meissner and others.

Mo., St. Louis—Store Equipment.—Miller Store Equipment Co., capital stock \$15,000, inceptd. by Milton Miller, I. W. Miller, Armen Traxler and others.

Mo., St. Louis—Trousers.—Klapholz-Siegfried Pants Mfg. Co., capital stock \$10,000, inceptd. by Herman Klapholz, M. J. Siegfried and Louis Maltz.

Mo., St. Louis—Measuregraph.—Measuregraph Co., capital stock \$300,000, inceptd. by W. E. Hosch, C. Carlton Hosch, A. O. Simpson and others; to mfr. patented fabric measuring and cutting machine.

N. C., Louisville—Tobacco.—Farmers' Tobacco Co., capital stock \$6000, inceptd. with S. S. Meadows, Pres.-Mgr.; J. N. Hanis, V.-P., and G. C. Hanis, Secy.-Treas.; building completed.

N. C., Mount Airy—Curbing.—North Carolina Curb Co. organized; subsidiary to North Carolina Granite Corp.

N. C., Mount Airy—Paving Block.—Mount

Airy Paving Block Co. organized; subsidiary to North Carolina Granite Corp.

N. C., Oxford—Tobacco.—Z. W. Lyon Co., capital stock \$8000, inceptd. by Z. W. Lyon and others.

N. C., Wilmington—Bakery.—Globe Baking Co., Geo. T. Johnson, Secy., will rebuild bread-baking department, lately noted burned at loss of \$8000.

N. C., Washington — Tobacco Prizery. — Washington Tobacco Warehouse Co. has plans for prize house, 150x80 ft. (See Warehouses.)

N. C., Wilmington—Mail Device.—International Mail & Parcel Post Exchange, authorized capital stock \$200,000, inceptd. by W. T. Mercer, B. G. Empe, G. C. Simmons and others; to mfr. device for conveying mail and post to and from trains in motion.

S. C., Charleston—Bakery.—Marjenoff Bakery, capital stock \$15,000, inceptd. by O. G. W. Marjenhoff, A. H. Marjenhoff and C. Ven Oshen.

S. C., Charleston—Bottling.—Brainol Bottling Co., 117 E. Bay St., reorganized with James F. Condon, Pres.; to install soft-drinks bottling plant.

S. C., Columbia—Ice-cream.—Rogers Ice-cream Co., Meridian, Miss., leased building and will install ice-cream plant.

S. C., Spartanburg—Bottling.—Spartanburg Chero-Cola Co., capital stock \$7500, inceptd. by J. B. McCarthy of Spartanburg, J. B. Fitzgerald and J. C. May of Augusta, Ga.

S. C., Spartanburg—Cigars.—Crescent Havana Cigar Co., John C. Hill, Mgr., 219 S. Dean St., will establish factory to have daily output 1000 cigars; no building to be erected. (Lately noted.)

Tenn., Memphis — Carbonic Acid. — Liquid Carbonic Co., Chicago, will erect carbonic acid gas plant; 60x100 ft.; one story; cost about \$40,000; H. T. McGee, Archt.; J. A. Smith, Contr.; A. J. Klear of Chicago, Supt.; construction begun.

Tex., Athens—Mattress.—Morgan Mattress Mfg. Co. will enlarge plant.

Tex., Coleman—Creamery.—Coleman Creamery Co. organized with \$3000 capital stock by Mr. Donnell of Belton, W. Temple Creamery Co. and others; will erect building; construction begun.

Tex., Coleman—Creamery.—Donnell Creamery Co. leased space from Coleman Ice & Fuel Co. and will operate creamery; latter company will furnish cold-storage, steam, etc. (Coleman Ice & Fuel Co. lately noted to install creamery.)

Tex., Marble Falls—Bakery.—S. A. Green let contract to G. Diederich, Bertram, Tex., for brick work in erecting bakery; 40x30 ft.; ordinary construction; cost \$1200. (Lately noted.)

Tex., Wichita Falls—Porcelain Liners.—Ball Bros. Glass Co. anticipate erecting no buildings as lately reported. (See Warehouses.)

Va., Ingersoll—Ingersoll Mfg. & Development Co., capital stock \$10,000, inceptd.; H. C. Land, Pres., of Surry, Va.; J. P. Beatty, Secy., Ingersoll.

Va., Norfolk — Ventilators. — Ventilating Utilities, capital stock \$300,000, inceptd.; S. P. Meyer, Pres.; H. A. Bartholomew, Secy.

Va., Norfolk—Boxes.—C. W. Cake has plans by and let contract to C. W. Dean, 130 10th St., Norfolk, to erect box-factory building at 320-22 23d St.; cost \$1000; ordinary construction; also let contract for bricklaying, roofing and painting.

Va., Richmond—Bakery.—Purity Ice Cream Co. has plans for \$75,000 annex for bread bakery.

Va., Roanoke—Vitrolite.—Vitrolite Works of Virginia, 503 S. Jefferson St., will build plant; let contract for building to cost \$8000; machinery (rubbing beds, etc., for handling vitrolite from rough to finished product) to cost \$2000.

Va., Rosslyn—Powder.—G. W. Offutt Powder Co., capital stock \$2000, inceptd.; G. W. Offutt, Pres.; G. W. Offutt, Jr., Secy., both of Washington, D. C.

Va., Suffolk—Peanuts.—Columbian Peanut Co. will erect peanut plant; 80x240 ft.; 5 stories.

W. Va., Morgantown—Glass.—United States Glass Co. will double size and equipment of Marilla window-glass plant and increase Jones plant from 8 to 14 units.

W. Va., Parkersburg—Glass.—Essex Glass Co. will make improvements to plant; increase output about one-third.

W. Va., Parkersburg—Vitrolite Glass.—Vitrolite Co. plans to increase capacity of plant.

MOTORS AND GARAGES

Ga., Macon — Automobiles. — Walthall Garage Co., capital stock \$25,000, inceptd. by Frank Walthall, S. J. Adams and R. M. Paterson.

Ky., Lexington—Automobiles.—Auto Livery Co., capital stock \$5000, inceptd. by B. J. Matthews, W. R. Williams, J. N. Gibbons and C. B. Matthews.

Ky., Louisville—Garage.—Mrs. W. S. Prinz will erect brick garage; cost \$2500.

Ky., Louisville—Cycle Cars.—National Cycle Car Co., 1007 Realty Bldg., organized with A. L. Gray, Pres.; D. C. Harris, V.-P., and Lawrence Poston, Secy.-Treas.; will mfr. cycle cars. (See Machinery Wanted.)

Md., Baltimore—Garage.—West Construction Co., 23 Knickerbocker Bldg., has contract to erect garage on N. Charles St.; 2 stories; brick and concrete.

Md., Baltimore—Garage.—Alexander Blumberg, 325 W. Baltimore St., let contract Singer-Pentz Co., 600 Equitable Bldg., Baltimore, to construct garage in rear 2204 Linden Ave.

Mo., St. Louis—Automobiles.—Automobile Clearing House, capital stock \$25,000, inceptd. by W. C. Shields, H. C. Deabold and H. J. Barton.

N. C., Pink Hill—Automobiles.—Pink Hill Motor Car Co., authorized capital stock \$5000, inceptd. by L. C. Turner, Thurman Davis, W. J. Smith and others.

Okla., Tulsa—Garage.—Chaston & Cathey will erect one-story garage and store; frame; cost \$12,000.

Tex., Houston—Garage.—J. M. Blair, 1212 Liberty Ave., let contract to L. L. Reber, 1212 Liberty Ave., to supervise erection of garage; 100x150 ft.; cost (without mechanical equipment) \$6000; fireproof; electric lighting to cost \$200. (Lately noted under Stores.)

Va., Norfolk—Automobiles.—Auto Car Sales Corp., capital stock \$25,000, inceptd.; James A. G. Pennington, Pres.; Rich. H. Burroughs, Secy.

Va., Richmond—Automobiles.—Kilne Motor Car Co. will add department for manufacturing automobile engines; purchased machinery.

W. Va., Albright—Garage.—Earl Swartz-welder, Box 22, will erect garage; 80x120 ft.; fireproof construction.

ROAD AND STREET WORK

Ala., Falkville.—City will construct cement sidewalks. Address The Mayor.

Ala., Luverne—Crenshaw County Commrs. let contract at \$10,542 to J. F. Giddens & Co., Troy, Ala., to grade, drain and surface with sand-clay about 8 mi. road. (Lately noted.)

Ala., Mobile.—Mobile County Commrs. and Board of Revenue will grade and surface Spring Hill Ave. from Catherine St. to Moffett Rd.; bids until Apr. 20; F. McClure, County Engr., Bank of Mobile Bldg., Mobile. (See Machinery Wanted.)

Ala., Opelika.—City has special assessment about \$30,000 to construct Dolarway pavement, with necessary granite curb and storm sewers; G. N. Mitchaus, Engr., Auburn, Ala.; contract (lately noted) let to Jamison & Hollowell, Atlanta, Ga., and Montgomery, Ala.

Ark., Helena.—City will improve portions of Perry and Poplar Sts. with asphaltic concrete, cement concrete and bitulithic; to include curb and gutter, storm-water drain pipe and other incidentals; Lalie Solomon, Secy. Board of Commrs.; bids Apr. 9; I. R. Parmalee, Engr. (See Machinery Wanted.)

Ark., Little Rock. — Street Improvement Dist. No. 232, August Probst, Chrmn., will grade, curb and pave with water-bound macadam, tarvia macadam or concrete about 4500 sq. yds.; bids until Apr. 3 at office of Ford & McCrea, Engrs. for Dist. 338 Gazette Bldg. (See Machinery Wanted.)

D. C., Washington.—District Commrs. ordered repairs and resurfacing of various streets; \$365,000 available; will expend \$44,000 on Maryland Ave. N. E. and \$27,500 on 21st St. from K St. to Massachusetts Ave.

Fla., Apalachicola.—Franklin county voted \$20,000 road bonds. Address County Commrs.

Fla., Daytona Beach.—City voted \$26,500 bonds for street improvements and waterworks; Harry A. Horn, Town Clerk.

Fla., De Land.—City contemplates voting on \$75,000 bonds for street paving and \$5000 for relaying shell removed from shelled streets. Address The Mayor. (Lately noted.)

Fla., Jacksonville.—Duval County Commrs. will construct Camp Site Highway with brick or cement; 5300 ft.; 15 ft. wide between

curbing; bids until Apr. 9; Frank Brown, Clerk; A. F. Harley, Engr., Jacksonville. (See Machinery Wanted.)

Fla., Port Tampa.—City voted \$17,000 bonds for paving and storm sewers; Hiram McElroy, Engr., Tampa, Fla. (Lately noted.)

Fla., Tampa.—Board of Public Works will open bids Apr. 7 for constructing more than 1½ mi. brick paving, total of 28,255 yds.

Ga., Macon.—Bibb county will vote on \$100,000 paving and sewer bonds. Address County Comms.

Ga., Macon.—City will pave Vineville Ave. between Pio Nono Ave. and Bay St. with concrete; cost about \$5000; C. C. Anderson, City Engr.

Ga., Trenton.—Dade county voted \$60,000 bonds to construct main thoroughfare through Dade county from Tennessee on north to Alabama on south; Claude T. Turner, County Ordinary. (Lately noted.)

Ky., Bowling Green.—Warren county will vote in May (change of date) on \$300,000 road bonds. Address County Comms.

Ky., Shelbyville.—Shelby county has \$40,000 available for maintaining pikes and building 3½ additional mi.; G. Murrell Middleton, Engr., Shelbyville. (Lately noted voting \$30,000 appropriation.)

Ky., Whitesburg.—Consolidation Coal Co., Fairmont, W. Va., and Baltimore, Md., will construct half of model roadway between Whitesburg and Shelby Gap by way of Fleming, McRoberts and Jenkins, distance 20 mi.

La., Abbeville.—Vermillion parish contemplates issuing 72,250 bonds to construct road from east to west line of parish, extending through Delcambre, Erath, Abbeville, Kaplan and Gueydan to Lake Arthur. Address Parish Police Jury.

La., Breaux Bridge.—City let contract at \$22,000 to Epley Construction Co., Hattiesburg, Miss., to construct cement walks. (Lately noted.)

La., De Quincy.—City rejected bids to construct 60,525 sq. ft. sidewalks and 14,480 lin. ft. curb; T. H. Mandell, Engr., Lake Charles, La. (Lately noted.)

La., Lake Charles.—Calcasieu Parish Police Jury, E. C. House, Clerk, will improve about 43 mi. highways Nos. 3, 4 and 9, and bridges and culverts thereon, about 1100 cu. yds. concrete and 2250 lin. ft. pile trestle; bids until Apr. 27; lately noted. (See Machinery Wanted.)

La., New Orleans.—City let contract to Grasser Contracting Co. to construct 2600 ft. creosoted wood paving on roadway between Clouet and Alvar Sts. (Lately noted.)

La., New Orleans.—Highway Dept., Board of State Engrs., let contract at \$6800 to A. K. Amacker, Lake Providence, La., to reconstruct 6½ mi. of Section No. 3 of East Carroll highway, East Carroll parish; 40,000 cu. yds.; W. E. Atkinson, Highway Engr., New Orleans, is in charge. (Lately noted.)

La., New Orleans.—City, A. G. Ricks, Commissioner, will pave portions of Tchouploulas, 9th and 3d Sts. with square granite blocks in accordance with specifications on file at office of City Engr.; bids until Mch. 31. (See Machinery Wanted.)

Md., Baltimore.—Maryland State Roads Com., O. E. Weller, Chrmn., 601 Garrett Bldg., will build 7 sections of State highway, amounting to 33.28 mi., in Allegany, Anne Arundel, Baltimore, Carroll, Garrett, Montgomery and Washington counties; bids until Apr. 14. (See Machinery Wanted.)

Md., Baltimore.—City will grade, curb and pave with sheet asphalt, under contract No. 129, about 60,000 sq. yds.; contract No. 130, about 62,064 sq. yds. sheet asphalt and 2690 sq. yds. vitrified brick; bids until Apr. 9 at office Richard Gwinn, City Register; Eugene E. Grannan, Prest. Comms. for Opening Streets. (See Machinery Wanted.)

Md., Cambridge.—Dorchester County Commissioners will build section of State-Aid Highway between Hurlock and Waddell's Corners, distance 2.25 mi.; bids until Mch. 31; R. H. Dixon, Jr., County Road Engr.; blank forms obtainable on application to State Roads Com., 601 Garrett Bldg., Baltimore, Md. (See Machinery Wanted.)

Md., Chestertown.—City contemplates voting on bonds for streets and sewers. Address The Mayor.

Md., Salisbury.—City petitioned Legislature for authority to issue \$30,000 bonds for street paving. Address The Mayor.

Miss., Decatur.—Dist. No. 4 of Newton county will expend \$125,000 to \$200,000 for road construction; reported voted issuance of bonds; T. H. Keith, Prest. Supvrs. (Lately noted.)

Mo., Joplin.—City contemplates paving Byers Ave., 4th St., north to Glenview Pl., distance of 10 blocks, with concrete. Address The Mayor.

Miss., Okla.—Chickasaw County Comms. of Third Supervisors' Dist., R. J. West, attorney, will grade and gravel about 9½ mi.; bids until Apr. 10. (See Machinery Wanted.)

Mo., St. Joseph.—Board of Public Works introduced ordinance recommending grading Walnut St. from 18th to 22d St., and paving Pacific St. with asphaltic concrete from 9th St. to Hansen Ave.

N. C., Germantown.—Meadows township of Stokes county let contract at \$30,000 to Henning & Hagedorn, Lagrange, Ga., to construct roads.

N. C., Marshall.—Madison County Highway Com. will grade 8.3 mi. of road; \$150,000 of \$300,000 bond issue available; probably advertise for bids Apr. 6; contract let about Apr. 22; J. B. Clingan, County Road Engr. (See Machinery Wanted.)

Okla., Tulsa.—Wekiwa township of Tulsa county has \$16,000 available to construct township road; W. H. Gendron, Engr., Tulsa; contract (lately noted) let to Ransom & Cook, Ottawa, Kans.

Okla., Marietta.—City will pave, grade, macadamize, curb, drain and otherwise improve 12 blocks in business and residence sections; also plan to improve 4 blocks on West 3d St.; Benham Engineering Co., 435 American National Bank Bldg., Oklahoma City, Okla., Engr.

S. C., Bennettsville.—City will pave portion of Main and Broad Sts. Address The Mayor.

S. C., Columbia.—Richland county, Andrew Patterson, Jr., Supvr., will repair 5 mi. of highway in Dutch Fork section of county.

Tenn., Knoxville.—Knox County Comms. let contract at \$5000 to J. C. A. Burnett Co. to repair Sevierville pike, beginning with Minnis farm and extending to county line. (Lately noted.)

Tenn., Nashville.—City will construct bitulithic paving under special improvement ordinances Nos. 4, 7, 19, 21, 25, 28, 32, 33, 34, 36, 38, 39 and 44; certain creosoted wood block paving, Nos. 10, 11, 14, 16, 17, 48, 49, 50, 53 and 56; certain granite block paving, Nos. 2, 6, 22, 54, 55 and 57; certain vitrified brick paving, Nos. 1, 5, 18, 26, 40, 41, 45 and 47; certain bituminous macadam paving, Nos. 9, 15, 20, 23, 37, 42 and 58; bids until Apr. 9 at office of J. W. Dashiell, Secy. Board of Comms.; W. W. Southgate, City Engr. (See Machinery Wanted.)

Tex., Austin.—City let contract at \$7400 to Texas Bitulithic Co. to pave W. 8th St.; M. C. Welborn, City Engr.

Tex., Bonham.—Comms.' Court defeated \$300,000 bonds for road construction. (Lately noted to vote on bonds.)

Tex., Corpus Christi.—City will vote Apr. 20 on \$50,000 bonds for street paving. Address The Mayor.

Tex., Fort Worth.—Tarrant County Commissioners let contract at \$315.55 to Satterwhite & West to construct Fort Worth Haslet road; will advertise bid for construction of portion of Bedford-Eules-Fort Worth road.

Tex., Galveston.—Galveston county let contract to Suderman & Dolson for shelling, grading and bulkheading 61st-St. road at \$55 for lumber, \$1.24 per cu. yd. for shell and 40 cents per cu. yd. for sand filling. (Lately noted.)

Tex., Greenville.—Hunt County Precinct No. 4 will vote Apr. 11 on \$200,000 road bonds. Address County Comms.

Tex., Cameron.—Milan County Road Dist. No. 7 will vote on \$65,000 bonds for road construction. Address County Comms.

Tex., Houston.—City, E. B. Bonney, Secy., let contract for street paving as follows: \$39,082.55, to Horton & Horton, Houston, for 3½ in. wood block on Texas St. from Main to Crawford Sts., and at \$988.35 for wood block on Crawford St. from Congress to Commerce St.; \$3087.65, to Texas Bitulithic Co., Dallas, Tex., for Capitol St. from Caroline to Austin, \$1644.95 for Austin St. from Franklin to Texas St., \$8901.50 for Austin St. from Elgin to Holman St.; \$9684.75, to Eureka Stone & Paving Co., St. Petersburg, Fla., for asphaltic concrete paving on Walker St. from Caroline to Crawford; \$14,269.10, to Uvalde Rock Asphalt Co., 1 Broadway, New York, for westrumite on Capitol St. from Main to Louisiana St., \$3279.10 for westrumite on Prairie St. from Main to Travis; \$17,754.25, to Roach-Manigan Paving Co., Memphis, Tenn., for asphaltic concrete on Webster St. from Crawford to St. Emanuel, \$20,317.85 for asphaltic concrete on McGomen St. from Main to Crawford; \$5845, to Eureka Construction Co., Tulsa, Okla., for asphaltic concrete on Elgin from Crawford to Chenevert St. (Lately noted.)

Tex., Mundy.—City will issue \$10,000 bonds for street improvements. Address The Mayor.

Tex., Palmer.—City let contract at \$8000 to J. C. Jarrett of Waxahachie, Tex., to pave streets in business section. (Lately noted.)

Tex., Port Lavaca.—Calhoun County Commissioners let contract to W. D. Stevens at \$130 ml. for grading 2½ ml. of road at Long Mott.

Tex., Rockwall.—Rockwall county will vote on \$200,000 road bonds. Address County Commissioners.

Tex., Victoria.—Victoria county will construct gravel roads in Road Dist. No. 5; bids Apr. 14; J. P. Pool, County Judge. (See Machinery Wanted.)

Va., Lynchburg.—City will pave portion of Park Ave. and Riverview Place; W. T. Jones, Contr.; cost about \$31,000.

Va., Richmond.—Administrative Board let contracts amounting to \$177,000 for following street paving: Smooth paving with asphalt block, Broad St. from 3d to Jefferson Sts., Washington Asphalt Block & Tile Co., Washington, D. C., at \$2.83 per sq. yd. for 23,326 yds.; Atlantic Bitulithic Co., Richmond, at \$2.56 per sq. yd. for 29,866 sq. yds. of Warren's bitulithic pavement; Central Construction & Supply Co., Harrisburg, Pa., at \$1.67 per sq. yd. for 25,581 sq. yds. asphaltic concrete paving. (Lately noted.)

W. Va., Fairmont.—Marion county will construct about 23 mi. roads and streets in Fairmont Dist.; County Court, John F. Phillips, Clerk, receives bids until Apr. 14; also receives bids until same date to furnish paving brick or block; plans, etc., on file with County Clerk at Fairmont, and Chaney & Armstrong, Fairmont, W. Va., and Washington, Pa. (See Machinery Wanted.)

SEWER CONSTRUCTION

Fla., Daytona.—City voted \$175,000 bonds for sewer and drainage system. Address The Mayor. (Lately noted.)

Fla., De Land.—City contemplates voting on \$15,000 bonds for storm-water drainage and \$5000 bonds for sanitary sewers. Address The Mayor. (Lately noted.)

Fla., Port Tampa.—City voted \$17,000 bonds for sewers and paving; Hiram McElroy, Engr., Tampa, Fla. (Lately noted.)

Ga., Macon.—Bibb county will vote on \$100,000 bonds for sewers and paving. Address County Comms.

Ky., Louisville.—Board of Public Works opens bids Apr. 3 to construct 2 intercepting sewers emptying into Beargrass Creek between Baxter and Broadway; estimated cost \$7000.

Md., Annapolis.—City petitioned Legislature for authority to issue bonds for sewage-disposal plant. Address The Mayor.

Md., Baltimore.—City will build storm water drains, contract No. 33; about 1040 lin. ft. 54-in. masonry drains, 1970 ft. 30-in. to 36-in. masonry drains, 10,750 lin. ft. 15-in. to 24-in. masonry drain, 3150 lin. ft. 12-in. to 15-in. inlet connections, 75 manholes and 144 inlets; bids until Apr. 8 at office of Richard Gwinn, City Register; Chas. England, Chrmn., Sewerage Com. (See Machinery Wanted.)

Md., Baltimore.—City will build Imhoff and sludge tanks and sludge beds at sewage-disposal works, sanitary contract No. 133; approximate quantities as follows: 22,700 cu. yds. excavation, 12,500 cu. yds. embankment, 270 cu. yds. sand for sludge beds, 7800 cu. yds. gravel for sludge beds, 2700 lin. ft. 12-in. vitrified pipe, 8770 lin. ft. unglazed drain tile, 5900 cu. yds. concrete masonry, 200,000 lbs. reinforcing steel, 60 tons cast-iron pipe, 90,000 lbs. structural steel, 190 cu. yds. rubble masonry; bids until Apr. 15 at office Richard Gwinn, City Register; Chas. England, Chrmn. of Sewerage Com. (See Machinery Wanted.)

Md., Centerville.—City petitioned Legislature for authority to issue \$10,000 bonds for street improvements. Address The Mayor.

Md., Chestertown.—City contemplates voting on bonds for sewers and streets. Address The Mayor.

Md., Denton.—City contemplates constructing sewer system. Address The Mayor.

Mo., Joplin.—City, C. B. Anderson, Engr., will probably issue call for bids to construct storm sewer and culvert on Broadway at Division St.

Md., Hurlock.—City petitioned Legislature for authority to issue \$45,000 bonds for sewers. Address The Mayor.

Mo., Kahoka.—City is having town surveyed by E. Hitt Stewart for sewer system, including septic tank.

Mo., St. Joseph.—City let contract to W.

B. Kelly to construct sewer in Dist. No. 136, and to E. F. Mignery to construct sewer in Dist. No. 4.

N. C., Elkin.—City let contract J. B. McCrary Co., Atlanta, Ga., to construct sewer system; cost \$7000; Mason Lillard, Chrmn. Sewerage Committee.

N. C., Mooresville.—City let contract to Sullivan, Long & Hagerty, Bessemer, Ala., to construct sewer mains. (Lately noted.)

Okla., Stigler.—Town Trustees, J. B. Sylander, Chrmn., receive bids until Apr. 14 on sewer and water-works extensions; Engrs., Winters & Dove, Fort Smith, Ark.; lately noted. (See Water-works and Machinery Wanted.)

Tenn., Greenville.—City opened bids to construct sanitary sewer system; Dobbs & Wetmore, Meridian, Miss., lowest bidder at \$30,206.51. (Lately noted.)

Tex., Brenham.—City retained M. Griffin O'Neil & Sons, Dallas, to prepare plans for sewer system and sewage-disposal plant; cost \$65,000. (Lately noted appointing committee to investigate for electrolytic disposal plant.)

Tex., Clifton.—City is having maps and estimates prepared for sewer system. Address The Mayor.

Tex., Houston.—City will construct storm sewer on Hadley and Gray Aves. from Smith to Travis St., cost \$8200; Elgin Ave. from Austin to Chenevert St., cost \$14,200; Louisiana St. from Lamar to Bell Ave., cost \$6500; Crawford St. from Capitol to Walker St., cost \$2200; Elgin Ave., Louisiana to San Jacinto St., etc., cost \$14,300; Tuam Ave. from Austin to Chenevert St., cost \$7000; Anita Ave. from Milam to Fannin St., cost \$8900; bids until Apr. 6; E. E. Sands, City Engr. (See Machinery Wanted.)

Va., Stuart.—City voted \$4000 sewer bonds; F. B. Burton, Mayor. (Lately noted.)

TELEPHONE SYSTEMS

Ky., Alvaton.—Alvaton Home Telephone Co. incptd. by J. E. Poo, E. M. Jenkins, Ed. C. Satterfield and others.

Ky., Concord.—Concord Telephone Co., capital stock \$2000, incptd. by A. Ashenbust, Julius Ashenbust, W. O. Call and Floyd Call.

Ky., Mt. Eden.—Cupid & Mt. Eden Telephone Co. incptd. by Ambrose Skinner, W. B. Mattingly and R. B. Ridgway.

Okla., Cushing.—Silver Ridge Telephone Co. incptd. by McCord Wilson, Geo. C. Eshwag and C. P. Ward.

Tenn., Collinwood.—Collinwood Telephone Co., capital stock \$3000, incptd. by W. W. Collin, E. L. Forsythe, C. J. Farris and others.

Tenn., Memphis.—Memphis Automatic Telephone Co., authorized capital \$2,000,000, incptd. by C. W. Thompson, J. B. Goodbar, T. R. Winfield and others; to purchase Memphis Telephone Co.; applied for franchise; expend \$500,000 for telephone extensions.

Tex., Parita.—Parita Telephone Co., capital stock \$2500, incptd. by J. A. Pirle, Roy Barnburg and Joe Campbell.

Va., Staunton.—Staunton Mutual Telephone Co. let contract to G. W. Fretwell, Staunton, to remodel North Augusta St. building for telephone exchange.

TEXTILE MILLS

Ga., Cedartown.—Cotton Yarn. — A. E. Young, Cedartown, and C. W. Bateson, Brooklyn, N. Y., will erect second-story addition to Josephine Mills; install 17,000 spindles; manufacture 24s to 40s yarn. (Lately noted to install cotton-spinning equipment.)

Ky., Louisville.—Woolen Yarns.—Sterling Spinning Co. secured building at 15th St. and Ormsby Ave.; will install equipment to mfr. woolen yarns for sweater trade; has steam power plant and electric motors; Geo. Dunham Prest. and Gen. Mgr. (Company lately noted incptd. with \$25,000 capital stock; George Dunham previously noted planning organization woolen mill company.)

N. C., Burlington.—Cotton Yarn.—King Cotton Mills Corp. will change to hosiery yarn production; machinery purchased; probably electric power; packing-room, elevator and toilets to be installed. (Lately noted.)

N. C., Elizabeth City.—Hosiery.—Pasquotank Hosiery Co. organized with Noah Burfoot Prest., F. V. Scott V.-P., Dennis Van Horn Gen. Mgr.; will erect building; install machinery for daily capacity 300 dozen pairs hosiery. (Lately noted incorporated with \$50,000 capital, etc.)

N. C., Marion.—Cotton Cloth.—Climchfield Mfg. Co., capital stock \$500,000, will organize with D. D. Little of Spartanburg, S. C., as

Prest.; J. L. Morgan, V.-P.; Hugh F. Little, Asst. Treas., both of Marion; let contract for 26,000 spindles, 600 looms, steam-power equipment, etc.; Engr.-Arch't, J. E. Sirrine, Greenville, S. C. (Lately noted.)

N. C., West Raleigh—Textile School.—Agricultural and Mechanical College let contract S. S. Toler, Rocky Mount, N. C., to rebuild textile school building reported burned at \$30,000 loss; will invite textile-machinery manufacturers to donate machinery equipment.

N. C., Winston-Salem—Knit Underwear.—P. H. Hanes Knitting Co. increased capital stock from \$600,000 to \$2,000,000; plans to construct additional buildings, equip them with new machinery, etc.; not ready to announce details.

Tenn., Knoxville—Hosiery.—Jacob Spiro temporarily abandoned plans to establish hosiery knitting mill. (Lately noted.)

Tenn., Knoxville—Knitting Yarn.—Appalachian Mills will erect additional story to Holston Bldg., providing about 50,000 sq. ft. floor space; expects to let contract within 2 weeks; purchased and will install 10,000 spindles, making 8s, 9s and 10s yarn and producing about 70,000 lbs. per week; cost \$200,000. (Lately noted.)

Va., Emporia—Cotton Yarns.—Clinton Mills Co., capital stock \$150,000, organized; Prest., H. A. Ayvad of Hoboken, N. J.; V.-P. and Secy., W. Saml. Goodwyn; Treas., E. M. Fadden; both of Emporia; will construct 500x61-ft. building costing about \$50,000; install 5000 spindles, 100 looms, group-drive electric power equipment, etc., costing about \$70,000; has awarded machinery contracts; is auxiliary of Ayvad Mfg. Co., Hoboken. (Lately noted inceptd.)

WATER-POWER DEVELOPMENTS

Mo., Willow Springs.—J. B. Quigley plans to construct hydro-electric plant on North Fork; supply electricity in Willow Springs, Mountain View, Cabool and other towns.

N. C., Elkin.—R. T. Gentry has contract to construct dam (wooden) for hydro-electric plant on Mitchell's River.

Tenn., Johnson City.—John W. Hunter interested in erection of electric plant; will furnish electricity for street-car system, domestic use, and light and power for manufacturing plants.

Tex., McAllen.—McAllen Ice, Light & Water Co., capital stock \$10,000, inceptd. by F. E. Osborne, R. E. Horn and J. T. Cardwell.

Va., Belle Isle, Postoffice Richmond.—Old Dominion Iron & Nail Works Co. completing development of water-power to extent of 3000 H. P.; building power-house of reinforced concrete and installing equipment; cost about \$50,000.

Va., Elkton.—Valley Power Co. will construct hydro-electric plant; develop 1300 H. P. on Shenandoah River near Grove Hill; cost about \$50,000; supply electricity in Elkton, Shenandoah City and Stanley; considering proposition to furnish electricity in Harrisonburg. (Lately noted inceptd. (under Electric Plants), \$100,000 capital stock; Charles McCoy, Prest., New York.)

Va., Richmond.—James River & Kanawha Power Co. organized to construct hydro-electric plant; not prepared to announce details. Address care of Wm. P. De Sausure, Merchants' National Bank Bldg.

WATER-WORKS

Fla., Daytona Beach.—City voted \$26,500 bonds for water-works and street improvements; Harry A. Horn, Town Clerk.

Fla., De Land.—City contemplates voting on \$30,000 bonds for water-works improvements. Address The Mayor.

Fla., Marianna.—City will extend water-works; probably issue bonds. Address The Mayor.

Ga., Ball Ground.—City contemplates installation of water-works and electric-light plant. Address J. B. Roberts.

Ky., Bardwell.—City let contract to Southern Well & Contracting Co. to sink 6-in. well 1000 ft. deep at power plant.

La., Baton Rouge.—Baton Rouge Electric Co. will not erect plant. (Lately noted considering removal of power plant.)

La., Hammond.—J. W. Skinner and Commissioners will make improvements to water-works; machinery will consist of 2 oil engines, 80 H. P. each, and 2 750-gal. pumps, to be direct connected, with necessary apparatus, hydrants, valves, cast-iron pipe and labor; bids until Apr. 27; Xavier A. Kramer, Engr., Magnolia, Miss.; lately noted. (See Machinery Wanted.)

La., Natchitoches.—State Normal School plans to construct water-works; cost about \$10,000; Dr. V. L. Roy, Prest.

La., New Orleans.—Sewerage and Water Board let contract at \$99,320 to John Minot to construct drainage pumping station No. 5, contract No. 61-D.

Md., Frostburg.—City contemplates \$25,000 bond issue for water-works. Address The Mayor.

N. C., Elkin.—City let contract J. B. McCrary Co., Atlanta, Ga., to construct water-works; capacity 100 gals. per hr.; cost \$25,000; Mason Lillard, Chrmn. Water-works Com.

N. C., Mooresville.—City let following contracts for water-works: At \$5436.20, Frank Moore & Co., Weldon, N. C., for laying water mains; United States Cast Iron & Pipe Foundry, Chattanooga, Tenn., for water pipes and specials Columbian Iron Works, Chattanooga, Tenn., for valves and hydrants. (Lately noted.)

N. C., Tryon.—City voted May 5 on \$20,000 bonds for water-works. Address The Mayor. (Lately noted.)

Okla., Stigler.—Town Trustees, J. B. Sylander, Chrmn., receive bids until Apr. 14 on water-works and sewer extensions; principal items are furnishing materials and building sedimentation basin with dosing apparatus at pumping station, laying 3900 ft. 12-in vitrified sewer pipe, 96 ft. 12-in. cast-iron pipe, and building 8 manholes, sewage settling tank and sludge bed; Engrs., Winters & Dove, Fort Smith, Ark.; lately noted. (See Machinery Wanted.)

Tenn., Jonesboro.—Board of Trade, E. J. Baxter, Prest., is interested in securing water-works; appointed committees to ascertain source of supply, cost, etc.; contemplates joining with county.

Tenn., Johnson City.—Board of Trade, E. J. Baxter, Prest., is considering proposition to install water-works.

Tenn., Memphis.—City contemplates voting on \$250,000 water-works extension bonds. Address The Mayor.

Tex., Crockett.—City, J. W. Young, Mayor, let contract for extension of water mains.

Tex., Lockhart.—Boyd Smith and associates of San Marcos, Tex., organized company with \$50,000 capital stock; purchased McDowell water plant.

Tex., Longview.—City let general contract Roach-Manigan Co., Fort Worth, for water-works construction; location on Sabine River 3½ mi. southwest of city; capacity 1,000,000 gals. per 24 hrs.; power-house 40x50 ft., cost \$6000; generator-house 20x30 ft., cost \$2000; filter plant 50x80 ft., cost \$30,000; reinforced concrete and brick; pipe line 3½ mi. long of 12-in. C. I. pipe, costing \$35,000; 150,000-gal. steel tank on tower, costing \$9000; install boiler, 2 steam pumps, motor-driven triplex pumps and mechanical filters; let contract for latter; total estimated cost \$100,000; Engr., Aetna Engineering Bureau, 17 N. La Salle St., Chicago; H. M. Roberts, Res. Mgr. of Bureau, Longview. (Lately noted.)

Tex., Rosenberg.—City, H. A. Meyer, Mayor, let contract to John W. Maxey, Houston, Tex., to install water-works; cost \$18,000.

Tex., Tenaha.—City plans to construct water-works or acquire present plant and enlarge. Address The Mayor.

Va., Harrisonburg.—City will expend \$12,000 to construct rectangular reinforced concrete reservoir with capacity 5,000,000 gals.; construction principally below surface of earth; construction on force account under supervision of Water and Sewer Committee and direct supervision of J. F. Noll, Supt. Public Works; total cost, including extension of water mains, \$20,000; J. H. Downing, Mayor. (Lately noted.)

Va., Stuart.—City voted \$6000 water-works bonds; F. B. Burton, Mayor. (Lately noted.)

W. Va., Huntington.—A. M. Lyon, Prest. Huntington Water Co., plans extensive improvements to plant, including additional pipe lines.

WOODWORKING PLANTS

Ark., Augusta—Staves.—Augusta Cooperage Co. will rebuild stove mill lately noted burned at loss of \$13,000.

Ark., Fort Smith—Wheelbarrows.—Western Wheelbarrow Mfg. Co., C. E. Spear, Prest., succeeds Western Wheelbarrow & Mfg. Co.; will continue plant. (Lately noted inceptd., \$150,000 capital.)

Ark., Junction City—Woodwork.—W. M. Williams will erect blacksmith shop and woodworking plant.

Ga., Rome—Furniture.—Rome Furniture Co., B. T. Haynes, Prest., will expend \$25,000 to erect plant to replace one burned; main building 90x60 ft.; one story; H. M. Smith, Arch't, Rome; bids opened Apr. 1; purchased

woodworking machinery; lately noted. (See Machinery Wanted.)

Ky., Henderson—Vehicles.—John J. Delker Co., John J. Delker, Mgr., will rebuild plant; 104x90 ft.; 3 stories; mill construction. Mr. Delker will supervise construction. (Lately reported damaged by fire.)

La., Ponchatoula — Boxes. — Ponchatoula Veneer & Package Co. inceptd. by Andrew Pussey and associates to establish box factory. (H. P. Hudson, New Orleans, La., lately noted interested in box plant.)

Md., Baltimore—Furniture.—Bagby Furniture Co., Exeter and Fleet Sts., will erect office and warehouse building as addition to present plant; 6 stories; brick and steel; 70x100 ft.; among contractors estimating are West Construction Co., 11 E. Fayette St.; Consolidated Engineering Co., Emerson Tower Bldg.; John Hiltz & Sons, 3 Clay St.; T. B. Stansfield & Co., 109 Clay St., all of Baltimore; T. L. Jones & Sons; bids open Apr. 6. (Lately noted.)

Mo., St. Louis — Cabinets. — Loughmann Cabinet Co. will erect factory; has site 45x120 ft.

N. C., Tramway, P. O. Sanford—Shuttle Block.—Worth Cole, Charlotte, N. C., will establish shuttle-block mill; building erected; purchased machinery.

Tenn., Memphis—Veneer.—Stimson Veneer Lumber Co., capital stock \$100,000, inceptd. by B. F. Katterhenry, J. V. Stimson, R. V. Stimson and others.

W. Va., Parkersburg—Barrels.—Standard Oil Co. (main office, 26 Broadway, New York) plans to rebuild (on about same scale) barrel factory reported burned at estimated loss of \$30,000; will probably erect by own force.

FIRE DAMAGE

Ala., Athens.—Dr. Ben S. Pettus' residence on Clinton St.

Ala., Geneva.—E. M. Tilton's residence on S. Commerce St.; loss \$3000.

Ala., Montgomery.—H. C. Davidson's residence at 614 S. Court St.; M. Mohr's residence, 122 Sayre St.; H. Loeb's residence, 124 Sayre St.; S. Dreyfus' residence, 126 Sayre St.; D. Hirsch's residence, 56 Sayre St.; total loss \$75,000.

Ala., Vinegar Bend.—Wiley M. Baxter's residence.

Ark., Birdell.—Horace Barden's store and postoffice; loss \$3000.

D. C., Washington.—Jeremiah Diggs' residence; 5 vacant dwellings owned by Harry Reuter; 2 dwellings owned by Petersen estate; total loss \$10,000.

Fla., Plant City.—Three dwellings owned by Rev. A. L. Brunson, Lakeland, Fla., loss \$3500; 2 dwellings owned by E. C. Stuart of Bartow, Fla.

Fla., South Jacksonville.—South Jacksonville Ferry & Land Co.'s building near foot of Ames St.; loss \$6000.

Fla., Tampa.—Phillip Citicel's cigar factory; loss about \$2500.

Ga., Atlanta.—Henry Durand's residence at 445 Washington St.; loss \$5000.

Ga., Atlanta.—School building at 161 Barksdale Ave., Ansley Park, owned by Hartsock & Williams; loss \$4000.

Ga., Savannah.—Warehouses and wharf, 25 box cars, tracks, etc., of Atlantic Coast Line R. R., E. B. Pleasants, Chief Engr., Wilmington, N. C.; total loss about \$132,000.

Ky., Clinton.—Starr Mills, owned by J. U. Kevill, Mayfield, Ky.; loss \$25,000.

Ky., Joy.—John Koebler's store and post office; loss \$6000.

Ky., Lebanon.—G. N. Brent's residence, owned by estate of Dr. W. E. Mattingly; loss \$10,000.

Ky., Russellville.—Graded school building; loss several thousand dollars. Address School Trustees.

La., Belle Alliance.—Jos. A. Dalferes' store; loss \$5000.

Md., Baltimore.—Henry Hubbach's residence at 2018 Slingluff Ave., Walbrook; loss \$4063.

Md., East Brooklyn.—Asphalt Products Co.'s plant; loss \$20,000.

Md., Hagerstown.—Portion of Hess Carriage Co.'s plant.

Md., Mt. Airy.—Farmers' Milling & Grain Co.; Watkins & Bangs' store; L. Runkles' store; C. L. Skeggs' store; W. W. Baker's dwelling; Mt. Airy Lumber & Grain Co.'s building; Baltimore & Ohio R. R. station; First National Bank; People's Lumber & Supply Co.'s building; W. H. Hood Sons Co.'s building; S. M. Lewis Co.'s store; E.

M. Molesworth & Sons' building; Miss Belle Runkles' residence; Arnold Fleming's residence; total loss \$75,000.

Md., Wilna.—Residence and outbuildings of Misses Grace and Mary Hardesty; loss several thousand dollars.

Miss., Hattiesburg.—W. S. McKinnon's store in Potal.

Miss., Jonestown.—A. Solomon's residence, loss \$4000; Mrs. Davis' 2 residences, loss \$4000; G. W. Butler's residence, loss \$5000.

Miss., Pascagoula.—Mrs. J. M. Pelham's apartment-house; loss \$5000.

Miss., Natchez.—Leo Moritz's residence in Cemetery Rd.; loss \$3600.

Miss., Woodville.—W. F. Tucker's residence; loss \$5000.

Mo., Deunweg.—Eureka mining plant, owned by C. M. Spring of Joplin, Mo.; loss \$4000.

Md., Glat, R. F. D. from Sykesville.—Geo. C. Shipley's residence, barn, wagon shed and outbuildings.

Mo., Eureka.—Thos. Shields' residence; loss \$5000.

Mo., Kansas City.—Armour & Co.'s stable at Ewing Ave. and State Line St.; loss \$20,000.

Mo., St. Louis.—R. B. Brown Oil Co.'s building at 2807-11 Papin St.

N. C., Asheville.—Asheville Dray, Fuel & Construction Co.'s storage plant and stables; loss \$40,000.

N. C., Durham.—J. W. Burroughs, Mgr. Academy of Music, states building was not damaged by fire, as lately reported.

N. C., Durham.—Chatham Furniture Co.'s building was not damaged by fire as lately reported.

N. C., Durham.—Smith Mfg. Co.'s plant was not damaged by fire as lately reported.

N. C., Durham.—Buildings of Broadie Duke, loss \$125,000; Q. E. Rawls & Son, loss \$40,000; F. W. Woolworth & Co., loss \$20,000; Markham-Harris Co., loss \$15,000; Pritchard, Bright & Co., loss \$25,000; A. E. Lloyd & Co., loss \$50,000; Herring & Elliot, loss \$20,000; R. Blacknall & Son, loss \$15,000; R. L. Bellamy, loss \$10,000; Carlton-Hackney Drug Co., loss \$5000. (Lately noted.)

N. C., Garland.—Garland Lumber Co.'s planing mill, 3 drykilns, office, etc.; loss \$25,000.

N. C., Lumberton.—West Lumberton Oil Mill's fertilizer plant; loss about \$9000.

N. C., West Raleigh.—Agricultural and Mechanical College's textile department, including building and machinery; reported loss, \$30,000 on each.

N. C., Wilmington.—Atlantic Coast Line R. R.'s planing mill and machine shops; loss about \$15,000; E. B. Pleasants, Chief Engr., Wilmington.

Tenn., Athens.—Arthur Prather's poultry plant and residence; loss several thousand dollars.

Tenn., Nashville.—John H. Hill's residence at 2525 Blair Ave.; loss \$20,000.

Tex., Beaumont.—N. E. Organ's residence at 3163 Magnolia St.; loss \$5500.

Tex., Canyon.—West Texas Normal School; loss \$200,000. Address Trustees.

Tex., Cisco.—Walt Sessions' residence; loss \$3000.

Tex., Denton.—Stoddard Hall dormitory of College of Industrial Arts; loss \$7000.

Tex., Eastland.—W. J. Jones' store, business building owned by Chas. Pettit, Denton, Tex.; Joe Fields' blacksmith shop, C. H. Simmons' blacksmith shop.

Tex., Henderson.—J. S. Dixon's residence; loss \$3000.

Tex., Nederland.—C. L. Freeman's 3 buildings; loss \$15,000.

Tex., Palestine.—P. B. Exell's stable, blacksmith shop and 2 dwellings.

Tex., Port Arthur.—D. T. Amburn's residence at 1147 6th St.; loss \$3500.

Tex., San Augustine.—San Augustine Compress Co.'s compress; loss \$70,000.

Tex., San Augustine.—Cotton compress of Roland Jones, Nacogdoches, Tex.; loss \$50,000.

Tex., Hallsville.—J. B. Culler's residence; loss \$3000.

Tex., Van Horn.—Texas & Pacific Ry.'s pumping plant; C. H. Chamberlin, Chief Engr., Dallas, Tex.

Tex., Weatherford.—Weatherford Water, Light & Ice Co.'s engine-room; loss \$30,000.

Va., Berkley, Station Norfolk.—A. Legum's warehouse; Simon Salisbury's residence.

Va., Portsmouth.—Dalby, Nottingham Co.'s

stable on King St. between Court and Middle Sts., owned by Milligan estate; loss \$500.

W. Va., Charleston.—Diamond Ice & Coal Co.'s plant; loss about \$50,000.

W. Va., Parkersburg.—Standard Oil Co.'s

barrel factory; loss \$30,000; main office, 26 Broadway, New York.

DAMAGED BY EXPLOSION

Ky., Bowling Green.—Wm. T. Smith's sawmill boiler at Three Forks.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ala., Tuscaloosa.—W. A. Rose has plans by Matthews H. Tardy, Box 705, Birmingham, to erect 2-story apartment-house; 8 suites; cost (without mechanical equipment) \$25,000; semi-fireproof; composition roof; steam heat; electric lighting; bids opened Mch. 25. (Lately noted.)

Ark., Little Rock.—Ira B. Davis will erect apartment-house at 519 E. Capitol St.; 3 stories; brick; cost \$25,000.

D. C., Washington.—Thos. W. Smith has plans by A. P. Clark, Jr., 816 14th St. N. W., Washington, for apartment-house on 6th St. between A and B Sts. N. E.; 3 stories; 50x50 ft.; cost (without mechanical equipment) \$25,000; semi-fireproof; slag and tile roof; steam heat; bids opened early in April.

Fla., Daytona.—D. J. Johnson, Uniontown, Pa., opens bids about May 1 to erect apartment-house; 80x140 ft.; 3 stories and basement; brick and mill construction; asphalt roof; electric lighting; gas ranges; elevator not determined; E. S. Hall, Archt., Daytona, will advertise for bids in few days. (Lately noted.)

Ga., Savannah.—J. H. Millar will convert dwelling at 1815 Habersham St. into apartment-house.

Ga., Savannah.—S. Elcholtz will remodel dwellings at 506-16 E. Henry St. into apartment-house.

Mo., St. Louis.—L. Rauch will erect stores and flats. (See Stores.)

Mo., St. Louis.—Arthur Tyrer will erect single flat building on McKee Ave.

Mo., St. Louis.—Jno. and J. B. Nicholson will erect 4 apartments, each suite to contain 3 rooms, porch and sunroom.

Mo., St. Louis.—American Real Estate Building & Investment Co. will erect 20 flats on Holly Ave. each to contain 4 and 5 room apartments; construction under supervision of Frank L. Dittmeier, St. Louis.

Mo., St. Louis.—Missouri-Ches. Realty & Investment Co. will erect 2-story tenement-house at 3940-42 Utah St.; cost \$5500.

Mo., St. Louis.—Albert H. Hoffmeister will erect flat-on Maffitt Ave.

Mo., St. Louis.—John and Melinda Kaiser will erect double 3-room flats for 4 families.

Mo., St. Louis.—Louis Leibel will erect 3-room flat building on Florissant Ave.

Mo., St. Louis.—Pasquale Anastasio will erect 3 double flats on St. Louis Ave.

Mo., St. Louis.—Trade Realty & Building Co. will erect two 2-story tenements at 204-65-68-10 Kingshighway; cost \$9000; construction by owner.

Mo., St. Louis.—R. A. & G. B. Bullock, 314 Fullerton Bldg., will erect 2 apartment-houses; 3 stories; gravel roof; cost \$20,000 each; cost of steam-heating plant \$1250. (Lately noted.)

Okla., Tulsa.—Mrs. Greek Glaise will erect 2-story brick apartment-house at 14th and Carson Sts.; cost \$5500.

Tenn., Memphis.—Ozanne & Hinson are reported to erect brick flats at Turley St. and Cottage Pl.; cost \$3500.

Tenn., Memphis.—Mrs. Agnes F. Francis, 1110 Peabody Ave., has plans by Regan & Weller, Memphis, for apartment-house at Peabody Ave. and Waldran St.; colonial style; brick veneer; 8 rooms; hot-water heat; vacuum cleaning plant; garage, servants' quarters and children's playhouse in rear; cost \$18,000.

Tenn., Nashville.—Clarence Bernstein has plans by C. K. Colley, Nashville, for Harding Court Apartments at 31st Ave. and West End; native light graystone foundation; first and second stories of Greendale tapestry brick; third story of white enamel brick; slate roof, with green tile trimmings; marquee over entrance; entrance and inner halls to have white tile floors and walls; sleeping porches; built-in glass-front refrigerators; shower baths; semi-indirect lighting; telephones; speaking tubes; call bells; double system of smokeless boilers for heating; incinerator; fireproof; double fire-escapes; fireproof stairways; ventilating system.

Tex., El Paso.—H. Bretter will erect 2-story brick tenement-house at 704-08 S. El Paso St.; cost \$5800.

Tex., El Paso.—W. K. Ramsey will erect brick apartment-house in Stevens Addition; cost \$36,000.

Tex., El Paso.—V. E. Ware will erect apartment-house at Ange and Rio Grande Sts.; cost \$22,000.

Tex., El Paso.—J. S. Morris will erect 2-story brick tenement-house at 710 El Paso St.; cost \$3500.

Tex., Houston.—G. H. Lewis will erect apartment-house at Sampson and Park Sts.; cost \$8000.

Va., Richmond.—J. D. Reynolds will erect two 2-story brick tenement-houses at 3208-12 Floyd Ave.; cost \$9000.

Va., Richmond.—H. C. Brown will erect 3-story brick apartment-house at 2305-07 Monument Ave.; cost \$12,000.

Va., Richmond.—G. W. Harris will erect 3 brick tenements on Floyd Ave.; cost \$5600.

Va., Richmond.—J. E. and C. A. Seaton will erect 2-story brick tenement-house on Floyd Ave.; cost \$10,212.

ASSOCIATION AND FRATERNAL

Ark., Lake City.—A. F. & A. M., Jno. W. Scobey, Secy. of Building Comm., I. O. O. F. and W. O. W. are preparing to erect lodge building.

Miss., Meridian.—Knights of Pythias, C. W. Bailey, Secy., open bids Apr. 30 to erect lodge and store building; 65x119 ft.; fireproof; gravel roof; steam heat; P. J. Krouse, Archt., Meridian. (Lately noted.)

Mo., Springfield.—B. P. O. E. has plans by J. H. Cooper, Joplin, Mo., for theater and clubhouse; 5 stories; cost \$150,000.

Tex., Aransas Pass.—Young, Emery & Usher have about completed lodge, post-office and office building. (See Bank and Office Buildings.)

Tex., Austin.—B. P. O. E. is having plans prepared for lodge building; cost \$50,000; probably let contract within 30 days. (Lately noted.)

Tex., Celina.—A. F. and A. M. are reported to erect 2-story building.

Tex., Corsicana.—I. O. O. F. is reported to expend \$40,000 to improve Odd Fellows' Widows and Orphans' Home, including erection of 1-story fireproof building to contain 24 rooms and cost \$20,000.

Tex., Houston.—Elks' Building Assn., E. A. Hudson, Pres., has no definite plans for lodge building. (Lately noted organized.)

Tex., San Antonio.—Ancient Free & Accepted Scottish Rite Masons contemplate erecting \$250,000 cathedral; will expend \$5000 to remodel Douglas High School building for lodge purposes.

Tex., Sulphur Springs.—Y. M. C. A. is reported to erect building.

Va., Roanoke.—Y. M. C. A. is reported receiving bids to erect building according to plans by Louis E. Jallade, 37 Liberty St., New York, and H. M. Miller, Associate Archt., Roanoke; 80x95 ft.; 5 stories; slag roof; cost \$125,000 without mechanical equipment. (Lately noted.)

BANK AND OFFICE

Ala., Bessemer.—W. J. Long, R. F. Smith, J. F. Lewis and W. H. Lewis are reported having plans prepared for office building at Third Ave. and 19th St. to replace Robie Hall, lately noted burned; 50 to 75 offices; steel and concrete; 100x110 ft.; cost \$125,000.

Ark., Altheimer.—Bank of Altheimer, J. S. McDonnell, Pres., will erect 2-story brick building.

Fla., Fort Pierce.—Bank of Fort Pierce opens bids Apr. 14 to erect bank and office building; 50x100 ft.; ordinary construction; Bedford stone; copper cornice; buff impervious press brick; common brick; electric lighting; cost \$25,000; plans obtainable from architect on deposit of \$25; lately noted. (See Machinery Wanted.)

Mo., St. Louis.—Missouri State Life Insur-

ance Co. will erect building at 15th and Locust Sts.; 3 or 4 stories; enameled terra-cotta exterior; probably 108x155 ft.; cost \$250,000; completion by Dec.; Albert H. Groves, Archt., St. Louis. (Lately noted.)

N. C., Durham.—First National Bank will erect building; reported to be probably 10 stories; bank wires Manufacturers Record: "Structure will be fireproof; cost \$150,000 to \$200,000; architect not selected."

N. C., Durham.—John Merrick, Pres. of North Carolina Mutual Provident Assn., will rebuild burned structure on Parrish St.

S. C., Charleston.—Citizens' Bank is having plans prepared by J. D. Newcomer, Charleston, for bank building at 253 King St.; 2 stories with 3-story effect; limestone and plate-glass front; 2 columns 37 ft. high; rounded plate-glass entrance; marble vestibule with tile floor; skylights for ventilating and lighting; hot-water heat; cost \$10,000.

Tenn., Camden.—A. Bain & Co. will erect business and office building. (See Stores.)

Tenn., Chattanooga.—American Trust & Banking Co., H. S. Probasco, Pres., opens bids about Apr. 4 to remodel building at Market and 8th Sts.; cost, without fixtures, \$15,000; install 5-stop automatic elevator; cost of marble, bronze and wood fixtures, \$15,000; address proposals to Chas. E. Bearden, Archt., Chattanooga. (Lately noted.)

Tenn., Tellico Plains.—Tellico Bank & Trust Co. has plans by W. H. Sears, James Bldg., Chattanooga, for brick building; safety vault; cost \$4000.

Tex., Aransas Pass.—Young, Emery & Usher have about completed office, post-office and lodge building. (Lately reported.)

Tex., Odem.—Odem State Bank will erect bank building; 25x50 ft.; 2 stories; brick; gravel roof; cost \$5000; construction in about 30 days. Address Grant Frederick.

Tex., Hamiltonburg.—Chas. R. Tips will receive preliminary sketches and estimates for brick bank building and \$12,000 brick school.

Va., Richmond.—Manchester National Bank receives estimates about May 1 to erect bank and office building; 45x150 ft.; ordinary construction; cost (without mechanical equipment) \$35,000; steam heating, etc., estimates received after May 1; terra-cotta to first story; face brick above; marquee and iron balconies; tile and terrazzo floors; Marcus Hallett, Archt., Mutual Bldg., Richmond. (Lately noted.)

W. Va., Martinsburg.—O. M. Ramsey of Berkeley Instalment Co. is reported to erect store and office building. (See Stores.)

CHURCHES

Ark., Conway.—Methodist Church will erect building; cost \$60,000. Address The Pastor.

Ark., Texarkana.—College Hill M. E. Church South, Rev. Jesse Mitchell, pastor R. F. D. No. 4, opens bids in about 2 months to erect building; 50x54 ft.; cost \$5000; brick veneer; wood roof; gas heat; electric lighting; Witt, Seibert & Co., Archts., Texarkana. (Lately noted.)

Fla., Clearwater.—M. E. Church South has plans by Geo. W. Kramer & Son, 1 Madison Ave., New York, for building; cost \$22,000; fireproof; furnace; electric lighting; construction about May 1.

Fla., Miami.—First Christian Church, Rev. I. E. Adams, pastor, is reported to extend structure.

Fla., Miami.—Methodist Church rejected plans for building and will have new plans prepared. Address The Pastor. (Lately noted.)

Fla., Orlando.—Baptist church will erect \$35,000 building. Address The Pastor.

Ga., Macon.—Mulberry Street Methodist Church, Rev. W. N. Ainsworth, pastor, will erect building; cost \$75,000 to \$100,000.

Ga., Tybee.—Roman Catholic Chapel will erect addition; J. J. McDonough, Chrmn., Building Com.

Ky., Cynthiana.—Baptist church is reported to erect building. Address The Pastor.

Ky., Barbourville.—Christian Church opens bids about Apr. 15 or 20 to erect building; 50x80 ft.; brick; metal-shingle roof; hot-air heat; electric lighting; cost \$8000; W. K. Hapin, Archt., North Middletown, Ky. Address proposals to J. A. McDermott, Barbourville. (Lately noted.)

Ky., Little Rock, R. F. D. from Paris.—M. E. Church South will rebuild structure; 30x55 ft.; mill construction; metal roof; construction in Apr. (Lately reported damaged by fire.)

Ky., Louisville.—Immanuel Presbyterian Church, Rev. T. N. Williams, pastor, will erect \$30,000 building.

Ky., Winchester.—Methodist Church has plans by Webber, Werner & Adkins, Cin-

natl. O., for building; J. H. Keyes, R. O. Fitch, Geo. Tomlinson and others, Building Comm.

La., New Orleans.—Soniat Christian Church will not erect building, as lately reported.

Miss., Drew.—First Methodist Episcopal Church, Rev. J. W. Raper, pastor, has plans by John Galsford, Memphis, Tenn., for building; brick; seating capacity of main auditorium 230, of Sunday-school 250; cost \$12,000.

Miss., Liberty.—Baptist church, R. S. Stewart, Chrmn. of Building Com., will erect brick building; cost \$10,000.

Mo., St. Louis.—United Hebrew Temple, Rev. Saml. Thurman, rabbi, will remodel temple at Kingshighway and Von Versen Ave. at cost of about \$20,000; acquired residence adjoining present structure; will remodel, build assembly hall to seat several hundred, etc.; Saml. J. Russack, Pres. of congregation.

N. C., Ayden.—Christian church has plans by Benton & Moore, Wilson, N. C., for Sunday-school room.

N. C., Mooresville.—Southside Baptist Church, Rev. A. W. Wilcox, pastor, is reported to let contract soon to erect building.

Okla., El Reno.—Christian Church is reported to erect building; cost \$20,000 to \$25,000. Address The Pastor.

Okla., Sand Springs.—First Methodist Church, Rev. Mr. Henderson, pastor, will erect temporary church building at 4th and McKinley Sts., 30x40 ft., and later erect \$10,000 permanent building.

S. C., Clinton.—M. E. church, B. L. King, Chrmn. of Building Comm., has plans by Casey & Fant, Anderson, S. C., for building; ordinary construction; steam heat; electric lighting; cost \$25,000; bids opened about June 1. (Lately noted.)

Tenn., Memphis.—St. Mary's Cathedral will not at present improve building. (Lately noted.)

Tenn., Memphis.—Catholic Church is having plans prepared by Rogan & Weller, Memphis, for building; English Gothic style; brick and stone trimmings; seating capacity 300; hot-water heat; electric lights; pipe organ; cost \$20,000.

Tex., Dallas.—Temple Emanu-El congregation selected Hubbell & Green, Dallas, as architects for temple at Harwood and South Boulevard; classic style; brick and stone; cost about \$100,000. (Previously noted.)

Tex., Denton.—First Baptist Church will probably select J. O. Parr, Oklahoma City, as Archt. for building; cost \$40,000. (Lately noted.)

Tex., Ennis.—Van Slyke & Woodruff, Fort Worth, are preparing plans for church building; cost \$16,000; semi-fireproof; metal shingle roof; furnace and fan system of heating; bids opened in 2 or 3 months. (Lately noted.)

Tex., Kerens.—Methodist church will erect building; cost about \$10,000; brick or frame. Address The Pastor.

Tex., Orange Grove.—Catholic church will erect building. Address The Pastor.

Tex., Lockhart.—Presbyterian Church will erect building; W. H. Whitmore, A. W. Jordan and others, Bldg. Com.

Tex., Marlin.—First Baptist Church is reported to erect building; cost about \$40,000. Address The Pastor.

Tex., Waco.—Provident Heights Baptist Church is reported to erect \$12,000 building; J. B. McCauley, Chrmn. Bldg. Com.

Va., Roanoke.—Belmont Baptist Church, Rev. H. T. Stevens, pastor, opened bids to erect building to cost \$20,000; Fields & Turner, Roanoke, are lowest bidders.

Va., Suffolk.—Main Street Methodist Church opened bids to erect church; J. H. Pierce, Norfolk, is lowest bidder at \$34,581; plans by Neff & Thompson, Norfolk, call for structure 60x70 ft.; seating capacity Sunday-school 600; brick; steam heat; electric lights; tile roof; cost \$40,000. (Lately noted.)

W. Va., Murphytown.—R. W. Edmondson, Dudley Rd., Parkersburg, W. Va., will expend \$3000 to erect church building; 32x42 ft.; fireproof; asbestos shingle roof; gas heating and lighting; cement sidewalks to cost \$150; lately noted to receive bids until Apr. 2 at Baptist offices, 32 Citizens' Trust & Guaranty Bldg., Parkersburg, W. Va. (See Machinery Wanted.)

W. Va., Wheeling.—Methodist Church of Shadyside has plans by J. C. Woods, Bel-laire, O., for \$22,000 building.

CITY AND COUNTY

Fla., Tampa.—Library.—Board of Public Works receives competitive plans until May 5 for Carnegie library at Franklin and Tampa

Sts. and 7th Ave.; 98x98x173 ft.; fireproof; basement 4 ft. below grade line; to contain lobby, delivery, general reading, reference, librarian's, stack, children's reading, lecture, catalogue, toilet, cloak and packing rooms; cost not to exceed \$50,000. (Lately noted.)

Ga., Americus—Hospital.—City will vote Apr. 29 on \$10,000 bonds to include \$3000 for contribution to hospital building fund. Address The Mayor. (See Schools.)

Ga., Atlanta—Hospital.—City will probably order election for May 5 to vote on \$750,000 bonds to improve Grady Hospital; tentative plans include outdoor clinic, dispensaries, laboratories, dormitories, 3 hospital buildings, sanitarium, boiler-room, laundry, orderlies' quarters, etc.

Ga., Macon—Fair.—Public Property Com. opened bids to erect addition to agricultural building at Central City Park; Griffin-Edwards Construction Co., Macon, is lowest bidder at \$4298. (Lately noted.)

Md., Salisbury—Jail, etc.—Wicomico County Commrs., Daniel B. Cannon, Treas., will change plans and invite new bids to erect jailer's residence and remodel jail, etc. (Previously noted to receive bids until Jan. 27.)

Mo., Carthage—Almshouse.—Jasper County Commrs. are having plans prepared by A. C. Michaelis, Miners' Bank Bldg., Joplin, Mo., for almshouse. (Lately noted.)

N. C., Elizabeth City—Market.—City is having plans prepared by Edw. Rossel Mitchell, Norfolk, for market; exterior of white terra-cotta; equipped with mechanical refrigerating system to include cold-storage compartments for each stall; steam heat; total cost \$35,000; sold \$20,000 bonds. (Lately noted.)

Okla., McAlester—Fair.—City will vote on \$30,000 bonds to purchase grounds and establish county fair; about \$25,000 to be expended for purchase of 40-acre tract and erect buildings. D. C. McCurtain, Mayor.

Okla., Okmulgee—Jail.—Okmulgee county defeated \$110,000 bonds for courthouse and jail. (Lately noted.)

Okla., Sapulpa—Jail, etc.—Creek county voted \$145,000 bonds to erect jail and courthouse; Abner Bruce, Clerk. (Lately noted.)

Tenn., Memphis—Stable.—City, C. C. Pashby, Clerk, will erect stable near Wilson St. and Walker Ave.; bids opened Mch. 31.

Tenn., Memphis—Poorhouse.—Shelby County Commrs. receive bids until Apr. 8 to erect 1-story brick addition to poorhouse; plans and specifications at office of Jones & Furbringer, Architects, Porter Bldg., Memphis.

Tex., Houston—Jail.—Harris county, H. L. Washburn, County Auditor, receives bids until Apr. 7 for general work only for insane ward at county jail; plans and specifications at office of Mr. Washburn and O. J. Lorehn, Archt., Houston. (Lately noted.)

Tex., Waco—City Hall.—City Commrs. are reported to have rejected all bids to remodel city hall and to advertise for new bids. (Lately noted.)

COURTHOUSES

Fla., Jacksonville.—Duval County Commrs. have plans by Talley & Summers, Jacksonville, for courthouse annex; 3 stories; provision for 7 additional stories; brick and Indiana limestone; Ionic style; 100x69 ft.; cost \$125,000. (Lately noted.)

Ga., Rome.—Floyd County Commrs. are reported to have accepted plans for courthouse improvements, including new vaults, additional toilet facilities on first and second floor, etc.

La., St. Bernard.—St. Bernard Parish Police Jury will advertise for bids to erect courthouse at Terre-aux-Bœufs; Toledano & Wogan, Architects, 1000 Perrin Bldg., New Orleans, La. (Previously noted to cost \$75,000.)

Okla., Okmulgee.—Okmulgee county defeated \$110,000 bonds for courthouse and jail. (Lately noted.)

Tex., San Antonio.—Bexar County Commrs. are reported to have plans by Leo M. J. Dielmann and Chas. Boelhaewe, San Antonio, for addition to courthouse, for which \$75,000 bonds were voted. (Previously noted.)

Okla., Sapulpa.—Creek county voted \$145,000 bonds to erect courthouse and jail; Abner Bruce, Clerk. (Lately noted.)

DWELLINGS

Ala., Scottsboro.—C. S. Howland has plans by W. H. Sears, James Bldg., Chattanooga, for frame residence; furnace heat; electric lighting; cost \$7000.

Ala., Scottsboro.—O. C. Hackworth has plans by W. H. Sears, James Bldg., Chattanooga, for frame bungalow; no heating plant; cost \$3500.

Ark., Little Rock.—Wm. Peterson will erect 2-story brick residence at 400 W. 18th St.; cost \$21,000.

Ark., Little Rock.—Chas. F. O'Neal will erect 2-story frame residence at 2023 Marshall St.; cost \$4000.

D. C., Washington.—A. C. Moses, The Burlington, will erect 5 dwellings at 433-41 Quincy St. N. W.; cost \$15,000.

Fla., Avon Park.—W. T. Hall will erect dwelling.

Fla., Jacksonville.—A. F. Baines will erect 2-story frame dwelling on Pearl St.; 20x44 ft.; metal roof; cost \$3000.

Fla., Miami.—J. E. Lummus has plans by August Geiger, Miami, for residence on Ocean Beach; 6 rooms and bath; concrete; red tile roof; cost \$6000; will connect with 2-story garage in rear.

Fla., Miami.—F. H. Wheeler, Indianapolis, Ind., is reported to erect residence on Alton Beach.

Fla., Miami.—T. J. Nolan, Omaha, Neb., is reported to erect residence on Alton Beach.

Fla., Miami.—Carl G. Fisher, Prest. Alton Beach Co., will erect residence on Alton Beach; English style; living-room 20x60 ft.; porches; salt water bathing pool on outside covered with glass; tennis courts, etc.; cost \$40,000. (Lately noted.)

Fla., Palmetto.—Mrs. Maggie Alexander will erect 2 residences; mill construction; shingle roof.

Fla., St. Petersburg.—Geo. Cooper will erect brick dwelling; 2 stories; cost \$5000.

Fla., Tarpon Springs.—Pinellas Realty Co., Jas. Murphy, Prest., will erect number of dwellings. (See Land Developments.)

Ga., Atlanta.—E. A. Hartsock will build 3 dwellings on Highland Ave.; 30x36 ft.; cost \$3000 each; ordinary construction; shingle roof; hot-air and hot-water heating; plans and construction by owner.

Ga., Rome.—Seaborn Wright will erect 3 bungalows at Third Ave. and 3d St.

Ga., Savannah.—E. M. Marley will erect 2-story frame dwelling on E. 33d St.

Ga., Savannah.—John K. Culver will erect 2-story frame dwelling on Waters Rd.

Ga., Savannah.—Savannah Development Co. will erect 1-story frame residence on E. 40th St.

Ga., Savannah.—Standard Investment Co. will erect 2-story frame residence on E. 39th St.

Ga., Tipton.—J. L. Brooks will erect residence corner 10th and Central Aves.; cost \$1000. (Lately noted.)

Ky., Louisville.—D. W. Dickinson will erect 2 frame cottages at 814-16 35th St.; cost \$3800.

Ky., Louisville.—J. N. Nurub will erect brick-veneer dwelling at 1915 Ivanhoe Court; loss \$3000.

Ky., Louisville.—C. D. Doll will erect 2 frame dwellings at 905-07 Ellison St.; cost \$4000.

Ky., Louisville.—E. J. Weinman will erect 2-story brick veneer residence on Bardstown Rd.; cost \$4000.

Ky., Lexington.—W. L. Carter will erect 2-story 8-room brick residence on West 6th St.; cost \$3000.

La., New Orleans.—A. R. Berry will erect 2-story frame residence; cost \$6600.

Md., Baltimore.—E. J. Tunis will rebuild dwelling at 29 Clifton Ave., Windsor Hills; 30x70 ft.; stone and frame; slate or tile roof; steam or hot-water heat; electric lighting; cost \$15,000; architect not selected. (Lately reported damaged by fire.)

Md., Baltimore.—Francis E. Yewell, Title Bldg., has plans by John R. Forsyth, 224 St. Paul St., Baltimore, for 4 dwellings on Fairview Ave.; 30x41 ft. each; 2 stories; frame; cost \$20,000; construction by owner.

Md., Baltimore.—Oscar T. Sewell, Markland Ave. near York Rd., will erect residence at Cedarcroft.

Md., Baltimore.—Frank Gunther, Gunther Bldg., is having plans prepared by Otto G. Simonson, Maryland Casualty Tower Bldg., Baltimore, for residence at Guilford; 2½ stories; brick.

Md., Baltimore.—Morris Whitridge, 818 University Parkway, has plans by Mottu & White, 322 N. Charles St., Baltimore, for residence at Guilford; 3 stories; brick and terra-cotta; contractors estimating are Thos. B. Stanfield & Co., 109 Clay St.; Gladfelter & Chambers, 2074 Woodberry Ave.; Willard E. Harn Co., 213 N. Calvert St.; Edw. Watters & Co., 509 N. Charles St.; Cowan Building Co., 106 W. Madison St., all of Baltimore, and Roland Park Co., Munsey Bldg., Baltimore, and Roland Park, Md.

Md., Baltimore.—John W. Styne of West Forest Park Co., Liberty Heights and Clerendon Aves., is erecting 2-family cottage for client; 29x50 ft.; 2½ stories; cost of building and lot \$9000; mill construction; slate roof; hot-water heat; electric lighting; completion by June 15.

Md., Baltimore.—Providence Realty Corp., Garrison and Piedmont Aves., has plans by Henry J. Tinley, 312 N. Charles St., Baltimore, for residence at Elsinor and Piedmont Aves.; 2½ stories; 26x56 ft.; cost \$4500; construction by owner.

Md., Baltimore.—Forest Park Co., Title Bldg., is having plans prepared by Henry J. Tinley, 312 N. Charles St., Baltimore, for 3 cottages, and by Oliver B. Wight, Munsey Bldg., Baltimore, for similar number; 2½ stories and 2 stories; frame and stucco; cost \$36,000.

Md., Baltimore.—Chas. E. Litzinger, 3678 Falls Rd., will erect number of 2-story brick dwellings on Remington Ave. opposite U. S. Marine Hospital. (Wm. R. Price previously noted to have purchased this property for client who would erect residences.)

Md., Baltimore.—P. C. Mueller Building Co., 3609 Fernwood Ave., is reported to erect number of slate-roof dwellings at Oakensaw, adjoining Guilford property; also about 60 cottages on Valleyview, Parkwood, Anthony and Orchard Aves., near Reialr Rd.; has 120 dwellings under construction on Fernwood Ave., 5th, 6th and 7th Sts., these to contain 6 rooms and bath each.

Md., Chevy Chase.—Miss F. Beall, 1834 G St. N. W., will expend \$5500 to erect residence on Primrose St.; 30x36 ft.; ordinary construction; peach bottom slate roof; B. F. Meyers, Archt., Bond Bldg., Washington, D. C.; bids opened Mch. 30. (Lately noted.)

Md., Mt. Washington.—McMahon Bros. Quarry Co., Law Bldg., Baltimore, Md., is reported to erect about 450 2-story porch-front dwellings in North Mt. Washington. (See Land Developments.)

Mo., Cassville.—Wm. F. Wardlaw, County Treas., will erect residence in S. M. Mitchell Addition.

Mo., Kansas City.—W. S. Hocker will erect residence at 112 Huntington Rd.

Mo., St. Joseph.—Geo. W. Groves will erect residence at 25th and Mulberry Sts.

Mo., St. Louis.—Cedars Realty Co. will erect 1-story 3-room bungalow.

Mo., St. Louis.—Leonard Rescia and Chas. L. Palmisano will erect 2 eight-room brick dwellings; cost, including site, \$16,000.

Mo., St. Louis.—Leonard & Bertha Rescia will erect 2½-story 8-room dwelling; cost \$7000.

Mo., St. Louis.—E. H. Leibinger will erect 2-story dwelling at 3972-74 Humphrey St.; cost \$7500.

Mo., St. Louis.—Monroe Construction Co. will erect five 5-room bungalows on Carter Ave.; tile bathrooms; marble sinks.

Mo., St. Louis.—J. Chas. Mueller is reported to erect 10 bungalows of 5 rooms and bath each; tile baths; steam heat; cost, including site, \$50,000.

Mo., St. Louis.—J. A. Prael, 4412 Arsenal St., will expend \$4800 to erect dwelling; 27x36 ft.; tile roof; hot-water heat to cost \$450; electric lighting; plans and construction by owner. (Lately noted.)

Mo., St. Louis.—Mrs. Anna L. McMahon is having plans prepared by Wm. P. McMahon for dwelling on Dartmouth Ave., Hillcrest; English timber type; vitrified brick; slate roof; porches; 36x34 ft.; hot-water heat; hardwood floors.

Mo., St. Louis.—Leo Maert Realty Building Co., 721 Michigan Ave., will erect 3 dwellings; composition and tile roof; stoves and furnaces; plans and construction by owner. (Lately noted to cost \$5100.)

N. C., Asheville.—E. W. Grove, St. Louis, is reported to have plans for number of cottages. (See Hotels.)

N. C., Fayetteville.—Dr. A. S. Rose has plans by Benton & Moore, Wilson, N. C., for residence; frame; cost \$8000.

N. C., Fayetteville.—J. S. MacNeill has plans by Benton & Moore, Wilson, N. C., for residence; frame; cost \$8000.

N. C., Wadesboro.—Walter E. Brook has plans by Robt. Elensschmidt, Charlotte, N. C., for dwelling; 2 stories; mantels and tiling; grates; screens; wood shingles; cost \$3500.

N. C., Wadesboro.—W. G. Ratliff has plans by Robt. Elensschmidt, Charlotte, N. C., for residence; mantels and tiling; grates and screens; tin shingles; cost \$3000.

N. C., Wilson.—W. E. Pace has plans by Benton & Moore, Wilson, N. C., for dwelling; brick veneer; cost \$5000.

Okla., Oklahoma City.—Nichols & Chandler will erect 3 dwellings in addition to 6 under construction.

Okla., Tulsa.—C. H. Bryan will erect two 1-story residences at 920-24 Galveston Ave.; cost \$3000.

Okla., Tulsa.—John W. Funston will erect 2-story frame residence at 216 W. Cameron St.; cost \$3000.

Okla., Tulsa.—J. W. Bozarth will erect one 2-story and one 1-story frame residence at 1524 and 1519 S. Boston Ave.; cost \$3000.

Okla., Tulsa.—R. F. Schofield will erect one 1½-story and one 1-story frame residence at 708 Galveston St. and 116 S. Frisco Ave.; cost \$4000.

Okla., Tulsa.—W. P. Moon will erect 2-story frame residence at 102 Jasper St.; cost \$5000.

S. C., Anderson.—C. S. Sullivan, member of Executive Com. of Board of Trustees of Anderson College, will erect residence on college campus for president; 8 or 9 rooms; brick veneer.

S. C., Mt. Croghan.—M. L. Raley has plans by Robt. Elensschmidt, Charlotte, N. C., for bungalow; 1½ stories; mantels, tiling and grates; cost \$3000. (Lately incorrectly noted at N. C., Mt. Croghan.)

Tenn., Chattanooga.—E. B. Craig has plans by J. D. Alsop, James Bldg., Chattanooga, for dwelling; tile roof; steam heat; cost \$12,000.

Tenn., Chattanooga.—Roy Crumbliss has plans by J. D. Alsop, James Bldg., Chattanooga, for residence; slate roof; steam heat; cost \$4000.

Tenn., Memphis.—Roush, Hobbs & Bailey will erect 4 residences at 415-25 N. McNeil St. and 1716-32 Peach St.; cost \$18,000.

Tenn., Memphis.—G. W. Ransom, 1112 Forest Ave., will erect 4 dwellings; 9 to 10 rooms each; cost \$5000 to \$6000 each; cost of hot-air heating plant \$200; plans and construction by owner; lately noted. (See Machinery Wanted.)

Tex., Caldwell.—Baptist Church will erect \$3000 parsonage. Address The Pastor.

Tex., Chapel Hill.—J. J. Shaver will erect residence.

Tex., Dallas.—Alex. Camp will erect 5-room frame cottage at 2306 Forest St.; cost \$3500.

Tex., Dallas.—E. H. Barnes will erect 2-story 18-room frame residence at 1919 Trinidad St.; cost \$5100.

Tex., Dallas.—J. A. Flemlister will erect 6-room frame residence at 115 N. Windomere St.; cost \$3000.

Tex., Dallas.—J. B. King will erect 2-story 9-room frame residence at 710 W. 10th St.; cost \$3000.

Tex., Dallas.—J. L. Greenfield will erect 2-story 8-room frame residence at 2626 Forest St.; cost \$4000.

Tex., Dallas.—J. L. Durham and others will erect two 6-room brick cottages at 4039-24 Colonial St.; cost \$7200.

Tex., Dallas.—S. F. Davis will erect 20-room 2-story frame residence on Bryan St.; cost \$8000.

Tex., Dallas.—W. H. Eckles will erect 24-room brick veneer building at 2527 Ross St. and addition and repairs at 2525 Ross St.; cost \$6300.

Tex., Dallas.—W. A. Thomas will erect 2-story 8-room frame residence at 3707 Gilbert St.; cost \$3000.

Tex., El Paso.—Hawkins Improvement Co. will erect brick bungalow; cost \$3000.

Tex., El Paso.—C. M. Youngberg will erect brick bungalow at Douglas and Luna Sts.; cost \$3500.

Tex., El Paso.—Perry-Kirkpatrick Co. will erect 3 brick bungalows in Sunset Heights; cost \$9000.

Tex., El Paso.—Geo. W. Sharp will erect 2 brick bungalows at Castle Heights; cost \$6500.

Tex., Houston.—Albert Wyatt will erect 3 5-room dwellings; cost \$3500.

Tex., Houston.—J. W. Lester will erect 2-story frame residence on Yoakum Blvd.; cost \$6500.

Tex., Houston.—Dan Rotan will erect 4 four-room cottages on Rotan St.; cost \$3000.

Tex., Houston.—J. D. McCraney will erect 6-room residence on Mt. Vernon St.; cost \$3900.

Tex., Houston.—Sam Grossman will erect 6 five-room cottages at Hadley and Dowling Sts.; cost \$5000.

Va., Fredericksburg.—D. J. Boulware is having plans prepared by E. G. Hedlin, Fredericksburg, for residence.

Va., Graham.—P. C. Winborne will erect residence.

Va., Norfolk.—Richard Baylor will erect residence in Lochaven; 2½ stories; 35x91

ft.; 14 rooms and 5 baths; Ferguson, Calrow & Taylor, Archts., Norfolk; bids opened Mich. 31.

Va., Norfolk.—W. R. Boutwell opened bids to erect residence; Turpin Bros., Norfolk, are lowest bidders at \$15,400; Wickham Taylor, Archt., Norfolk.

Va., Norfolk.—Farrant Investment Corp. let contract to Geo. F. Wilkinson & Co. to erect double brick residence on Anne St.; cost \$3500.

Va., Richmond.—B. H. Melton will erect residence; 2 stories; brick; cost \$6000.

Va., Richmond.—Jas. J. Pollard will erect 2-story brick dwelling on Monument Ave.; cost \$13,368.

Va., Richmond.—Katherine C. Ricks will erect 3-story brick dwelling at 2003 W. Grace St.; cost \$16,000.

Va., Roanoke.—W. W. Coxie will erect 2-story brick-cased dwelling on Maple Ave.; cost \$4000.

Va., Salem.—Rev. J. E. Poteet is reported to erect 8-room frame dwelling.

Va., Salem.—G. W. Zimmerman is reported to erect dwelling.

Va., Salem.—John H. Garst is reported to erect brick-cased dwelling.

Va., Salem.—L. M. Smead is reported to erect 2-story brick-cased dwelling.

Va., Salem.—E. B. Emory, Jr., Roanoke, Va., is reported receiving bids to erect residence.

W. Va., Huntington.—Fred Holsaver will erect 2-story brick residence on 6th Ave.; cost \$3000.

W. Va., Huntington.—Nancy E. Hatfield will erect 8-room brick residence at 935 8th St.; cost \$3000.

GOVERNMENT AND STATE

Ark., Little Rock.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C.—Bids May 1 for alterations in United States postoffice and courthouse, in accordance with drawings and specifications, copies of which are obtainable on application to custodian at site, or at this office, at discretion of supervising architect. (Lately noted letting contract to J. F. Sullivan for painting and repairs.)

D. C., Washington.—Agricultural Building. Sidney Bieher, Riggs Bldg., has plans by MacNeil & MacNeil, Union Trust Bldg., Washington, for building to be occupied by Department of Agriculture; reported cost \$300,000.

D. C., Washington.—Animal House.—Treasury Dept., Oscar Wenderoth, Supvr. Archt., Washington, D. C., will receive bids until May 2 for grading grounds, etc., and construction, including mechanical equipment and approaches, of animal house for Hygienic Laboratory; 2 stories and basement; ground area 4200 sq. ft.; fireproof, except roof; brick facing; composition roof; drawings and specifications from custodian at site and Supr. Archt.

Md., Owings Mills.—Barn.—Contractors estimating on barn for Maryland Training School for Feeble-Minded are Gladfelter & Chambers, 2074 Woodberry Ave.; P. Watts & Son, Sudbrook Ave.; Cowan Building Co., 106 W. Madison St.; G. Walter Torrell, Eutaw and Dolphin Sts.; E. D. Springer & Co., 424 S. Charles St., all of Baltimore, Md.; Elliott & Emmart, Archts., Union Trust Bldg., Baltimore; bids opened Apr. 1.

Mo., Jefferson.—Jail.—Board of Prison Inspectors has plans by H. H. Hohenschild, St. Louis, for cell building at penitentiary; 4 stories; 600 concrete cells; accommodations for 1300 convicts; cost \$350,000. (Lately noted.)

Tenn., Shelbyville.—Postoffice.—Treasury Department, Oscar Wenderoth, Supvr. Archt., Washington, D. C., will receive bids until May 4 to construct postoffice, including mechanical equipment, lighting fixtures and approaches; 1 story, basement and mezzanine; brick facing; 3600 sq. ft. ground area; fireproof, except roof; drawings and specifications at office of custodian at Shelbyville and Supr. Archt. (Lately noted.)

Tex., Aransas Pass.—Postoffice, etc.—Young, Emery & Usher have about completed postoffice, lodge and office building. (See Bank and Office Bldgs.)

Tex., Bryan.—Postoffice.—Treasury Department, Oscar Wenderoth, Supvr. Archt., Washington, D. C., receives bids until Apr. 30 to erect postoffice, including mechanical equipment, lighting fixtures and approaches; 1 story and basement; 3700 sq. ft. ground area; non-fireproof; stone and brick facing; tin and composition roof; drawings and specifications at office of custodian at Bryan and Supr. Archt.

Tex., Longview.—Postoffice.—Treasury Dept., Bureau of Supplies and Accounts, Oscar Wenderoth, Supervising Archt., Washington, D. C.—Bids May 12 to construct complete (including mechanical equipment, interior lighting fixtures and approaches) U. S. postoffice; 2 stories and basement; ground area 3800 sq. ft.; non-fireproof construction; stone and brick facing; composition and slate roof; drawings and specifications obtainable on application to custodian at site and at this office, at discretion of supervising architect.

Va., Hampton.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C.—Bids May 9 to construct, complete (including mechanical equipment, interior lighting fixtures and approaches), United States postoffice; one story and basement, with ground area of about 4620 sq. ft.; stone and brick facing; composition roof; first floor fireproof; drawings and specifications obtainable from custodian of site, or at this office, at discretion of supervising architect.

HOTELS

D. C., Washington.—Arlington Corporation, Jas. Mullen, Prest., has commissioned Wyatt & Nolting, Keyser Bldg., Baltimore, Md., to prepare plans for developing Arlington Hotel site at Vermont Ave., H and I Sts. N. W.; 6 or 7 stories; about 700 rooms; cost about \$2,000,000. (Lately noted.)

Md., Baltimore.—Harry Busick, Mgr. of New Howard and Caswell hotels, and other interests plan to erect hotel at Howard and Baltimore Sts.; 10 or 12 stories; brick and stone; cost about \$1,000,000; architect not selected; details not determined.

N. C., Asheville.—E. W. Grove, St. Louis, has tentative plans for enlargement of Grove Park Inn and for number of cottages surrounding same.

N. C., Lincolnton.—K. L. Lawing is reported having plans prepared by J. M. McMichael, Charlotte, for improvements to North State Hotel; to include erection of addition in rear; 3 stories; brick.

N. C., Lumberton.—Lumberton Hotel Co. opens bids about May to erect 40-room hotel; ordinary construction; composition or tin roof; boiler; freight elevator; cost (without mechanical equipment) \$40,000; architect not selected. (Lately noted inceptd., \$100,000 capital.)

N. C., Charlotte.—O. H. Clarke, 1419 Columbia Rd. N. W., Washington, D. C., is reported preparing plans for hotel to cost about \$150,000.

Okla., Tulsa.—J. E. Crosbie acquired Hotel Tulsa and is reported to erect several stories to portion of structure, making entire building 10 stories; cost of improvements about \$50,000.

S. C., Charleston.—James Sottile is reported to erect 100 additional rooms and otherwise improve hotel at Isle of Palms; completion by June 1.

S. C., Edgefield.—Hotel Johnson has plans by G. Lloyd Preacher, Augusta, Ga., for hotel; 3 stories; brick.

S. C., Laurens.—Alken & Watts will expend \$15,000 to erect addition to hotel; 16 rooms and 8 sample-rooms; ordinary construction; metal roof; steam heat; Meyer & Stillwell, Archts., Hendersonville, N. C.; construction in summer. (Lately noted.)

Tex., Aransas Pass.—P. C. Willard, Shawnee, Okla., and Bay View Hotel Co. arranged to erect hotel; 30 rooms; brick; fireproof; 75x140 ft.; 2 stores, 25x70 and 25x50 ft., on each side of entrance; cost \$25,000 to \$40,000.

Va., Suffolk.—L. P. Hill, Mgr. of Nansmond Hotel, is reported to be manager of proposed hotel to be erected.

Va., Suffolk.—Suffolk Engineering & Surveying Co. is reported preparing plans for hotel to be erected by company to be organized; 65 rooms; 4 stories; brick.

MISCELLANEOUS

Ark., Little Rock.—Natatorium.—R. M. Mobley will erect natatorium on Summit Ave.; 2 stories; frame; cost \$22,000.

Fla., Tampa.—Clubhouse.—Tampa Chess Club, Hafford Jones, Secy., being organized with \$20,000 capital; will purchase building and remodel.

Ga., Atlanta.—Clubhouse.—Atlanta Athletic Club is reported to erect clubhouse at East Lake to replace structure lately noted burned; loss \$50,000; Geo. Adair, Chrmn. of Com.

Ga., Atlanta.—Clubhouse.—Atlanta Athletic Club, B. E. Thrasher, Secy., will rebuild clubhouse; size not determined; probably fireproof; roofing not determined; steam heat (have plant); electric lighting; cost \$40,000; architect not selected. (Lately reported damaged by fire.)

La., New Orleans.—Nurses' Home.—Touro Infirmary and Hebrew Benevolent Assn., E. V. Benjamin, Prest., is reported to issue \$70,000 bonds to erect nurses' home in connection with infirmary; cost about \$50,000.

La., New Orleans.—Clubhouse.—Lane Cotton Mills will erect clubhouse for employees at Water and Cadiz Sts., to be supervised by Y. M. C. A.; reinforced concrete and frame; accommodations for 800; swimming pool; gymnasium and shower baths.

Md., Tolchester Beach.—Bathhouses.—Tolchester Co., Pier 16, Light St., Baltimore, will erect bathhouses.

Miss., Meridian.—Clubhouse.—Woman's Club is reported to erect \$40,000 building.

Mo., Columbia.—Market.—Hetzler Bros. engaged Robt. M. McCandlish Engineering Co., 723-724 Midland Bldg., Kansas City, Mo., to prepare plans and specifications for retail market to cost about \$30,000; install refrigeration plant.

Mo., St. Joseph.—Hospital.—Trustees of Noyes Hospital will erect hospital at 24th, Jones and Frederick Ave.; architect not selected. (Lately noted.)

Mo., St. Louis.—Clubhouse.—Missouri Athletic Assn. will erect clubhouse to replace structure lately noted burned at loss of \$25,000.

N. C., Asheville.—Clubhouse.—Asheville Club is reported to erect clubhouse at Church St. and Ravenscroft Rd.; probably 2 stories and basement; cost \$25,000.

N. C., Elizabeth City.—Hospital.—Elizabeth City Hospital Co. let contract to J. W. Jones, Goldsboro, N. C., to erect hospital; 88x88 ft.; cost (without mechanical equipment) \$19,000; brick and brick veneer; Benton & Moore, Archts.; Wilson, N. C. (Jno. Soliba lately noted letting contracts.)

Okla., Oklahoma City.—Baseball.—Oklahoma City Baseball Club, W. C. Holliday, Prest., is reported having plans prepared by Layton & Smith, Oklahoma City, for baseball park.

Tex., Hillsboro.—Auditorium.—Geo. Sturgis and others are reported organizing company to erect auditorium.

Tex., Houston.—Sheds.—Shippers' Compress Co. will erect 3 open sheds; cost \$5500.

Tex., Sulphur Springs.—Hospital.—Dr. W. W. Long will erect hospital; cost about \$5000.

Tex., Waco.—Clubhouse.—Progress Club is reported to erect \$25,000 clubhouse; L. Migel, Chrmn. Bldg. Com.

Tex., Waco.—Market.—C. H. Higginson, 801 Amicable Bldg., will rebuild meat market occupied by W. S. Hammond; 60x75 ft.; cost (without mechanical equipment) \$20,000; ordinary construction; construction in about 6 months. (Lately reported damaged by fire.)

Tex., Wichita Falls.—Clubhouse.—John W. Thomas is interested in erecting clubhouse and library for ladies; details not determined.

Va., Berkley, Sta. Norfolk.—Parish-house.—St. Paul's Protestant Episcopal Church has plans by Ferguson, Calrow & Taylor, Roster Bldg., Norfolk, for parish-house; 100x30 ft.; 2 stories and basement; ordinary brick construction; roofing not determined; steam heat; electric lighting; plans ready for bids in about 3 weeks. Address proposals to Rev. Jas. D. Gibson, Box 225. (Lately reported.)

RAILWAY STATIONS, SHEDS, ETC.

Ark., Stuttgart.—Chicago, Rock Island & Pacific Ry., C. A. Morse, Chief Engr., will not erect depot. (Lately reported.)

Ga., Rome.—Southern Ry. Co., B. Herman, Chief Engr., 1300 Pennsylvania Ave. N. W., Washington, D. C., is reported to expend \$1500 to improve depot in East Rome.

Ga., Savannah.—Atlantic Coast Line R. R., E. B. Pleasants, Chief Engr., Wilmington, N. C., will rebuild structures reported burned at loss of \$132,000.

Tenn., Clinton.—Southern Ry., B. Herman, Chief Engr., 1300 Pennsylvania Ave. N. W., Washington, D. C., will, it is reported, erect \$15,000 freight and passenger station; brick; slate roof.

Tenn., Memphis.—Union Ry., E. S. Pennebaker, Resident Engr., will erect freight-house and cotton platform; 300 ft. long.

Tex., Luella.—St. Louis Southwestern Ry. Co. of Texas, W. T. Eaton, Chief Engr., Tyler, Tex., will erect depot.

SCHOOLS

Ala., Andalusia.—City plans to vote on \$35,000 bonds to erect school. Address The Mayor. (Lately noted.)

D. C., Washington.—Catholic University of America, it is reported, has plans by Murphy & Olmstead, 1413 H St. N. W., Washington, for \$7000 residence.

Fla., Ojus.—Ojus School Dist. plans election on \$10,000 bonds for schools; R. E. Hall, County Supt. of Public Instruction, Miami, Fla.

Fla., West Tampa, Sta. Tampa.—Hillsboro County School Board is reported to erect 3 schools in West Tampa; Marshall Moore, Supt. of Public Instruction.

Ga., Americus.—City will vote Apr. 29 on \$10,000 bonds, to include \$3000 for contribution to hospital building fund and \$7000 to complete \$30,000 grammar school. Address The Mayor.

Ga., Columbus.—City lets contract in about 2 weeks to erect grammar school at North Highlands; 55x55 ft.; cost \$20,000; asbestos or tin roof; steam heat; T. F. Lockwood, Archt., Columbus, Ga. (Lately noted.)

Ga., Milledgeville.—Milledgeville Mfg. Co. is reported to erect school; 2 stories and basement; equipped for carpenter shops, domestic science department, etc.

Ky., Elizabethtown.—Elizabethtown Graded School Dist. voted \$25,000 bonds to erect school. Address Dist. School Trustees. (Lately noted.)

Ky., Louisville.—Bishop O'Donoghue, Wheeling, W. Va., is reported to erect brick school at 3514 W. Jefferson St.; cost \$12,000.

Ky., Pikeville.—City voted \$50,000 bonds to erect school. Address The Mayor.

Ky., Tompkinsville.—Tompkinsville School Dist. voted \$7000 bonds. Address Dist. School Trustees.

La., New Orleans.—Department of Public Finances, Accounting Div., A. G. Ricks, Commr., receives bids until Apr. 6 to erect 1-story and basement frame and stucco-covered school in block bounded by Carnot, Arts, Painter Sts. and Monroe Ave.; plans, specifications and blank proposal forms at office of City Engr.

Miss., Meridian.—City will vote Apr. 24 on \$75,000 bonds for school improvements; J. W. Parker, Mayor. (Lately noted.)

Miss., Weir.—City will erect dormitory for agricultural school; 50x80 ft.; mill construction; sheet iron roof; stoves; cost \$4000; J. R. Gladney, Mayor. (Lately noted.)

Mo., Bismarck.—Board of Education, C. H. Lacy, Secy., receives bids until Apr. 8 to erect school; separate bids for plumbing and sewerage, heating and ventilating apparatus and electric work; probable cost \$30,000; Jno. A. Lange, Archt., Security Bldg., St. Louis.

Mo., Harrisonville.—City voted \$20,000 bonds to erect school. Address School Board.

Mo., Springfield.—Board of Education, A. D. Allen, Secy., will expend \$40,000 to erect grammar school at corner George and Fremont Sts.; fireproof; slate roof; direct steam heat; electric lighting; O. L. Brettner, Archt. (Lately noted to receive bids until Apr. 8.)

Mo., Rolla.—Executive Com. of Missouri School of Mines and Metallurgy, Edw. Kahlbaum, Secy., receives bids until Apr. 14 to erect gymnasium, including heating, plumbing and accessories; plans and specifications at office of H. H. Hohenschild, Archt., 310-12 Navarre Bldg., St. Louis.

N. C., Charlotte.—School Commrs. plan school improvements at cost of about \$50,000 as follows: 4 rooms to First Ward School, with auditorium in basement; 4 rooms to North Charlotte School; 4 rooms to Fourth Ward School; 4 rooms to Dilworth School, and erection of 18-room building at South School. (Lately noted.)

N. C., Elkin.—City will erect school on site of present academy; 80x115 ft.; mill construction; metal roof; cost \$15,000; steam heat to cost \$1000; electric lighting, \$200; J. B. Burdum, Archt.; construction May 15.

N. C., Henderson.—School Trustees are reported to erect school in North Henderson.

N. C., Oxford.—Graded School Trustees will erect brick school.

N. C., Rocky Mount.—Board of Graded School Trustees opens bids about Apr. 15 to erect school; 81x150 ft.; ordinary construction; slate roof; cost \$30,000; E. D. Ryerson, 3759 Northampton St., Washington, D. C., Archt.; address proposals to L. V. Bossett. (Lately noted.)

N. C., West Raleigh.—Agricultural and Mechanical College will rebuild textile department. (See Textile Mills.)

Okla., Tulsa.—Board of Education, R. S. Fellows, Secy., will erect high school to accommodate 1000 students; fireproof; natural-gas heat; electric lighting; architect not selected.

lected; lately noted. (See Machinery Wanted.)

S. C., Anderson.—C. S. Sullivan will erect residence for president of Anderson College. (See Dwellings.)

S. C., Barnwell.—Barnwell Graded School Dist. voted \$25,000 bonds to purchase site and erect building; Geo. H. Bates, Chmn. of School Trustees.

S. C., Cedar Springs.—N. F. Walker, Prest., Deaf and Blind Institute, has plans by Wm. A. Edwards, 632 Candler Bldg., Atlanta, for primary building; ordinary construction; slate roof; steam heat; electric lighting; cost \$35,000; drawings not complete.

S. C., Charleston.—School Commrs., A. B. Rhett, Supt., is having plans prepared by J. D. Newcomer, Charleston, to remodel Courtenay school; rearrange rooms of present building and erect 3-story addition, giving total of 29 classrooms and auditorium; cost \$25,000. (Previously noted.)

Tenn., Camden.—Camden School Dist. voted \$20,000 bonds for schools. Address Dist. School Trustees. (Lately noted.)

Tex., Belton.—City plans to issue \$50,000 bonds to erect high school and \$10,000 bonds for school improvements. Address The Mayor.

Tex., Canyon.—State Normal School Regents are reported to rebuild main building at West Texas State Normal School, reported burned at loss of \$200,000.

Tex., Clifton.—School Trustees are having plans prepared for proposed \$25,000 school, for which bonds were previously voted.

Tex., Cooper.—City voted \$5000 bonds to erect school. Address The Mayor.

Tex., Dallas.—University of Dallas, Rev. Patrick Finney, Director, is reported considering tentative plans for dormitory and science hall to cost about \$80,000.

Tex., Gonzales.—Gonzales Independent School Dist. will probably issue bonds. Address Dist. School Trustees.

Tex., Fort Worth.—Field & Clarkson, architects, 601 Wheat Bldg., receive bids until Apr. 4 to erect 3-story brick building for Hebrew Institute; plans and specifications at office of architects.

Tex., Hamiltonburg.—Chas. R. Tips will receive preliminary plans and estimates for school. (See Bank and Office.)

Tex., Jacksonville.—Alexander Collegiate Institute, M. L. Lefler, Prest., has plans by S. R. Roy, Jacksonville, for 3-story dormitory to replace burned structure; fireproof; steam heat; electric lighting; cost \$25,000; bids opened about Apr. 1. (Lately noted.)

Tex., San Angelo.—City voted \$80,000 bonds to erect high school and make other school improvements. Address The Mayor. (Lately noted.)

Tex., Terrell.—School Board will expend \$75,000 to erect 2-story-and-basement school building; fireproof; brick; tar and gravel roof; steam heat and ventilating system; electric lighting; C. H. Page & Bro., architects, Austin, Tex. (Lately noted to receive bids until Apr. 14.)

Tex., Waco.—State Juvenile Training School will expend \$40,000 (cost without mechanical equipment) to erect dormitory; 80x94 ft.; 2 stories and basement; reinforced concrete construction; tar and gravel roof; steam heat; electric wiring; Roy E. Lane, Archt., Waco; bids opened Feb. 28. (Lately noted.)

Tex., Yoakum.—City will vote on \$30,000 bonds to erect school. Address The Mayor. (Similar issue lately voted, but not approved.)

Va., Fredericksburg.—Fredericksburg State Normal School has plans and will soon receive bids for dormitory; fireproof; construction to permit further enlargement; \$42,500 available.

Va., Lexington.—Virginia Military Institute, M. B. Corse, Secy., Building and Grounds Comm., receives bids until Apr. 25 to erect 3 officers' houses, move 3 officers' houses, tear down and rebuild 3 officers' houses and add third story to administration building; ordinary construction; brick; steam heat; electric lighting; Bertram G. Goodhue, Archt., New York.

Va., Lynchburg.—School Board is reported to petition city for \$5,000 appropriation to erect 8-room school to replace Court Street School lately burned.

W. Va., Logan.—Board of Education of Logan Dist., Chas. Avis, Secy., will erect 8-room brick school building; fireproof; slate or tile roof; steam heat; architect not secured; bids opened about July 1; will vote May 2 on \$75,000 bonds. (Lately noted.)

W. Va., Wheeling.—Board of Education, Frank Stanton, Clerk, invites architects to submit plans and specifications until Apr. 9 to rebuild school, erect fireproof addition

and install sprinkler system. (Lately noted to cost \$100,000.)

STORES

Ark., Augusta.—Augusta Mercantile Co. has plans by Theo. M. Sanders, Little Rock, for store; 52x128 ft.; semi-fireproof; steam heat; tar and gravel roof; cost \$16,000. (See Machinery Wanted.)

Ark., Jonesboro.—C. B. Barnett has plans by H. A. Leistmaster, Jonesboro, for store building; fireproof; heating and lighting not determined; cost \$8000; open bids in about 15 days. (Lately reported damaged by fire.)

Ga., Atlanta.—Mrs. M. E. Tanner will erect store at 8 Piedmont St.; cost \$4000; day labor.

Ga., Atlanta.—Mackie-Crawford & Millen are reported to erect brick store; day labor; cost \$3500.

Ga., Augusta.—Mrs. Geo. H. Howard is reported to erect 2-story brick store building.

Md., Baltimore.—Jenkins & Jenkins, 216 N. Charles St., are having plans prepared by Baldwin & Pennington, Professional Bldg., Baltimore, for building to replace present structure; 3 or 4 stories; details not determined.

Mo., Kansas City.—Guernsey & Murray will erect building.

Miss., Meridian.—Knights of Pythias Lodge No. 13, C. W. Bailey, Secy., opens bids Apr. 30 to erect store and lodge building. (See Association and Fraternal Bldgs.)

Mo., St. Louis.—L. Rauch will erect stores and flats at Taylor and Natural Bridge Aves.

N. C., Asheville.—Gay Green will erect store and warehouse building. (See Warehouses.)

N. C., Durham.—W. P. Clements will erect building to replace structure lately burned.

N. C., Durham.—Pritchard, Bright & Co. will rebuild structure reported burned at loss of \$25,000.

N. C., Durham.—W. J. Christian will erect 2 or 3-story building to replace structure lately burned.

N. C., Durham.—Victor S. Bryant and others will rebuild structure lately burned.

N. C., Durham.—Brodie L. Duke, it is reported, will probably erect 3-story store building to replace structure reported burned.

N. C., Scotland Neck.—Boroughs-Pittman-Wheeler Co. has plans by Benton & Moore, Wilson, N. C., for building; 50x100 ft.; 3 stories, with annex 25x50 ft.; ordinary construction; steam heat; electric elevator.

N. C., Winston-Salem.—Gorrell Co., Inc., is reported to erect building to be occupied by H. C. Morris, Southern Pines, N. C.

Okla., Tulsa.—Chaston & Cathey will erect 1-story frame store and garage at Frankfort and 2d Sts.; cost \$12,000.

S. C., Anderson.—J. L. McGee contemplates rebuilding structure; plans not definite. (Lately reported damaged by fire.)

S. C., Anderson.—S. H. Kress & Co., 396 Broadway, New York, is reported to erect store building; 2 stories and basement; estimated cost \$35,000.

S. C., Columbia.—Drs. G. B. White, Harvey E. McConnell and M. H. White are reported to erect brick and granite building.

S. C., Mt. Croghan.—J. O. Taylor has plans by Robt. Elsenschmidt, Charlotte, N. C., for store; 70x90 ft.; 2 stories; plate glass; fire doors; I-beams; window gratings; tin roof. (Lately noted incorrectly at Mt. Croghan, N. C.)

Tenn., Camden.—A. Bain & Co. are reported to erect business and office building; brick; completion by June 1.

Tenn., Lawrenceburg.—Sherman Kelly is reported to erect 2-story brick business building.

Tex., Celina.—R. T. Peterman will erect 2-story brick building.

Tex., Dallas.—Jno. De Staffino will erect 2-story brick building at 1905 Commerce St.; cost \$4000.

Tex., Dallas.—Sam Freshman will erect 2-story brick store at 3500 Grand St.; cost \$7500.

Tex., Emory.—Matt Skeen, Handley, Tex., will let contract in July or August to erect mercantile building; 60x75 ft.; fireproof; probably tin roof; stoves; electric lighting; cost \$6000 to \$7000. (Lately noted.)

Tex., Gonzales.—Lewis & Spooner receive bids until Apr. 7 to erect 2-story brick store building; plans and specifications at office Lewis & Spooner, Gonzales, and Henry T. Phelps, Archt., 707-19 Gunter Bldg., San Antonio.

Tex., Hillsboro.—H. H. Crouch will rebuild store lately burned; 50x20 ft.; ordinary construction; steel and brick; tin roof; stoves; electric lighting; cost \$8000.

Tex., Poth.—Poth Furniture & Hardware Co., A. H. Poth, Mgr., will erect store building; 2 stories; red brick; cost \$12,000.

Tex., San Antonio.—Henry Half of A. B. Frank Co. is reported to erect series of small stores at Houston and Flores Sts.

Tex., San Saba.—J. M. Carter will erect stone business building.

Tex., Waco.—Ray Rowell will erect store; 50x165 ft.; 3 stories; ordinary construction; gravel roof; cost \$15,000; construction about May 1. (Lately noted.)

Tex., Wichita Falls.—Bland & Henderson will erect business building; ordinary construction; tar and gravel roof; cost \$22,500; architect not selected. (Lately noted.)

W. Va., Martinsburg.—O. M. Ramsey of Berkeley Instalment Co. is reported to erect building; 3 to 5 stories; 31x153 ft.; pressed brick; passenger elevator system; fireproof; basement and first floor for store; upper floors for offices.

W. Va., Parkersburg.—Martin-Nelly Wholesale Grocery Co. acquired site 140x210 ft. and will erect building.

THEATERS

Md., Baltimore.—New Theater, Lexington St. near Park Ave., is having plans prepared by H. L. Stevenson & Co., Chicago, for enlargement and improvement to theater; practically double present seating capacity of 1800; plans include 27-ft. addition to west of building from entrance to present lobby, thence to alley and through to Clay St.; total enlargement 87x78 ft.; construction (by day labor) to begin by Apr. 12.

Mo., Springfield.—B. P. O. E. has plans for theater and clubhouse. (See Association and Fraternal Bldgs.)

S. C., Columbia.—Miss Rosalie Muckenfuss, Palace Bldg., New York, leased Lyric Theater and will rebuild and enlarge it; Wilson & Sompayrac, Architects, Columbia.

S. C., Moultrieville.—Western Amusement Co., \$5000 capital, inceptd. by B. W. Keach, W. B. Boggs and A. M. Cloud.

Tenn., Memphis.—Imperial Motion Picture Co., with \$25,000 capital, inceptd. by W. T. Watson, Robt. Sterling, J. H. Phifer and others.

Tex., Cleburne.—J. F. Green opens bids about Apr. 25 to erect moving-picture theater; 45x165 ft.; cost (without mechanical equipment) \$20,000; fireproof; concrete roof; hot air heat; I. A. Walker, Archt., 901 Southwestern Life Bldg., Dallas, Tex. (Lately noted.)

Va., Lynchburg.—H. C. Elliott, Roanoke, Va., purchased property at 101-13 Main St. and will erect moving-picture theater; Mc-

Laughlin & Johnson, Archts., Lynchburg, Va.

Va., Norfolk.—Palace Amusement Corp. is reported to receive bids through Jno. D. Winn, Archt., until Apr. 10 to erect theater on Church St.; brick-stucco front; 50x201 ft.; cement floor; steel trusses; seating capacity 850; approximate cost \$14,000. (Lately noted.)

WAREHOUSES

Fla., Tampa.—Tampa Gas Co. will expend \$8000 to erect warehouse; 60x80 ft.; ordinary construction; gravel roof; A. H. Johnson, Tampa, Archt. (Lately noted.)

Md., Baltimore.—M. L. Himmel & Son, 169 N. Frederick St., is having plans prepared by Otto G. Simonson, Maryland Casualty Tower Bldg., Baltimore, for warehouse at Frederick and Harrison Sts.; 5 stories; reinforced concrete and brick.

N. C., Asheville.—Gay Green will expend \$20,000 to erect warehouse and store building; 40x125 ft.; fireproof; metal roof; steam heat; day labor. (Lately noted.)

N. C., Mt. Olive.—Mount Olive Tobacco Warehouse Co., \$25,000 capital, inceptd. by W. F. Martin, Rodney Knowles, Jas. M. McGee and others.

N. C., Townsville.—Townsville Tobacco Warehouse Co. will erect 2 tobacco warehouses; 70x170 ft. and 70x140 ft.; cost \$4000 to \$5000; mill construction; metal roof; bids opened Apr. 1; also erect 3 tobacco prize houses 4 stories in height. (Lately noted inceptd., \$25,000 capital, by S. R. Adams and others.)

N. C., Washington.—Washington Tobacco Warehouse Co. has plans by M. M. Jones, Washington, for warehouse 150x90 ft., and prizehouse 150x80 ft.; cost (without mechanical equipment) \$9000; fireproof construction; metal roof. (Lately noted.)

S. C., Hartsville.—Hartsville Tobacco Warehouse Co., \$12,000 capital, inceptd. by M. S. McKinnon, Prest.; L. Vaughan, Secy.-Treas.

Tenn., Adams.—R. E. Qualls will erect warehouse.

Tenn., Memphis.—Lee Lane will erect storehouse.

Tex., Dallas.—H. A. Overbeck, Archt., 502-06 Juanita Bldg., Dallas, receives bids until Apr. 6 to erect 3-story-and-basement reinforced concrete warehouse for Simmons-Newsome Co.; alternate bids on mill construction; plans and specifications at office of architect as above.

Tex., Wichita Falls.—Ball Bros. Glass Co. anticipates erecting no buildings. (Lately noted to erect warehouse and furnace to make porcelain liners for jar caps.)

Va., Richmond.—Purity Ice-Cream Co. will erect warehouse on Cary St.; cost \$35,000.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—John L. Warren, Southern Bldg., let contract to Fox & Lewis, 37 R St. N. W., Washington, to erect apartment-house at 1434 Harvard St. N. W.; 85x115 ft.; cost (without mechanical equipment) \$80,000; fireproof floors, stairs and partitions; slag or Carey's roofing; steam heat; electric lighting; Hunter & Bell, Architects, Southern Bldg., Washington. (Lately noted.)

Fla., Jacksonville.—Mrs. E. M. Du Pose let contract, it is reported, to W. V. Henry to erect 2-story frame apartment-house on Church St.; 24x60 ft.; metal roof; cost \$5000.

Mo., St. Louis.—E. F. Hummert let contract to B. J. Charleville, St. Louis, to erect 2 three-story tenements at 367 Shaw St.; cost \$30,000; P. J. Bradshaw, Archt., St. Louis.

Mo., St. Louis.—Dr. V. Kunz, 3254 Jefferson Ave., let contract to Fred W. Schlueter, Jr., 2215 Cherokee St., St. Louis, to erect 2-family tenement-house; 28x52 ft.; 2 stories; ordinary brick construction; composition tar and gravel roof; cost \$6000; cost of heating plant \$650; lighting \$100; subcontracts let locally. (Lately noted.)

Mo., St. Louis.—R. Seyffert will erect 2-story tenement-house at 5221 Paulian Pl.; cost \$3000.

Mo., St. Louis.—F. Strankovsky let contract to L. Milberger to erect 2-story tenement-house at 3448 Pennsylvania Ave.; cost \$3400.

N. C., Winston-Salem.—J. N. Davis let contract to A. H. Walls to erect apartment-house; 10 apartments; 2 stories; brick; metal roof; cost \$30,000.

Tenn., Memphis.—B. F. Holmes let contract

to Irwin & McGuire, Memphis, to erect double brick tenement-house at 825-27 Brecklove St.; cost \$3000.

Tenn., Memphis.—Saul Isenberg let contract to erect store and flat. (See Stores.)

Tenn., Nashville.—Arthur Wasserman let contract to G. W. McClanahan to erect apartment-house; 2 5-room apartments; ordinary construction; slate roof; hot-air heat; gas and electric lighting; C. K. Colley, Archt., 33 Life & Casualty Bldg., Nashville.

Tex., Houston.—E. E. Adkins has plans by and let contract to D. D. Pittman to erect apartment-house on 15th St. near Harrisburg Rd.; 2 stories; cost \$4000.

Va., Norfolk.—S. B. Stanfield of Stanfield Bros. let contract to Vega & Richardson, Withers Bldg., Norfolk, to erect apartment-house at Westove Ave. and Greenway Ct.; white pressed brick; frontage 100 ft.; 3 stories; cost \$25,000.

ASSOCIATION AND FRATERNAL

S. C., Spartanburg.—J. A. Jones, Charlotte, N. C., general contractor for erection of Y. M. C. A. Bldg., let following sub-contracts: Plumbing, heating and drainage to W. B. Tuimarin & Co., Columbia, S. C.; roof, sheet-metal work and skylights, Piper Roofing & Mfg. Co., Greenville, S. C.; painting, T. F. Cruse Co., Charlotte, N. C.; mill work, Perkins Mfg. Co., Augusta, Ga.; marble and tile work, McClamrock Marble & Tile Co., Greensboro, N. C.; electric wiring, Shores Osborne Electric Co., Spartanburg, S. C.; steel and cast-iron work, Richmond Structural Steel Co., Richmond, Va.; structure to cost \$70,000 without mechanical equipment; 82x148 ft.; mill construction; slag roof; steam heat to cost \$6000; electric lighting, \$2000; Shattuck & Hussey, Architects, Chicago; previously noted. (See Machinery Wanted.)

Tex., Chireno.—A. F. and A. M. let contract to Shearer & Yates, Lufkin, Tex., to erect temple; cost \$4000.

BANK AND OFFICE

D. C., Washington.—National Savings & Trust Co., Wm. D. Hoover, Pres., 15th St. and New York Ave. N. W., let contract at about \$300,000 to Boyle-Robertson Construction Co., 1516 H St. N. W., Washington, to erect bank and office building; 5 stories; 115x130 ft.; granite; 2 electric elevators; A. P. Clark, Jr., Archt., 816 14th St. N. W., Washington; 2 upper floors to be occupied by U. S. Court of Custom Appeals. (Previously noted.)

D. C., Washington.—Frank A. Munsey let contract to Geo. A. Fuller Co., Munsey Bldg., Washington, to erect addition to building; 12 stories; 37x159 ft.; tile roof; single pipe direct heat; electric lighting; granolithic sidewalks; electric elevators; cost \$300,000; McKim, Mead & White, Archts., 101 Park Ave., New York; steel contract let to Jones & Laughlin Steel Co., Pittsburgh, Pa. (Lately noted.)

Fla., Ocala.—Commercial Bank let contract to Franz Safe & Lock Co., Jacksonville, Fla., for steel vault doors, linings, deposit boxes, etc., for bank building; McIver & McKay, Archts.; contract to remodel building (lately noted) let to J. A. McBride & Co., Jacksonville.

Fla., Plant City.—Mrs. A. Harrell let contract to erect office, store and theater building. (See Stores.)

Fla., Plant City.—Hillsboro State Bank let contract to G. A. Miller, Tampa, to erect tank building; 75x109 ft.; ordinary construction; cost (without mechanical equipment) \$50,000; gravel roof; steam heat; electric lighting; F. J. Kennard, Archt., Tampa, Fla. (Lately noted.)

Ky., Louisville.—Atherton Realty Co. let contract for alterations to Equitable Bldg. (Lately noted to cost \$20,000.)

Mo., Chaffee.—C. A. Jones let contract to Price & Millers, Chaffee, to erect brick business building.

Tex., Houston.—Texas Co., T. G. Donoghue, acting V. P., approved plans by Warren & Wetmore, 16 E. 47th St., New York, for office building; 12 stories; steel frame; stone or brick; 102x132 ft.; cost about \$750,000; Geo. A. Fuller Co., Contr., Munsey Bldg., Washington, D. C. (Lately noted.)

CHURCHES

Mo., Oak Grove.—Methodist Episcopal Church let contract to W. J. Smith, Kansas City, Mo., to erect building; Carthage stone; tile roof; 42x46 ft.; basement under entire building; completion by Aug. 1.

N. C., Raleigh.—Holy Trinity Lutheran Church let contract to erect building according to plans by H. E. Bonitz, Wilmington, N. C.; cost \$10,000. (Previously noted.)

W. Va., Charleston.—First Presbyterian Church let following sub-contracts to erect building: Foundation and brick work, Geo. F. Gates, Charleston; iron and steel work, Potthoff Construction Co., Cincinnati, O.; limestone, Hoosier Cut Stone Co., Bedford, Ind.; terra-cotta, New York Architectural Terra-Cotta Co., New York; granite, Lemmerman & Hoffman Granite Co., Mt. Airy, N. C.; exterior millwork, Morgan Lumber & Mfg. Co., Charleston; lathing and plaster work, Indiana Plaster & Art Marble Co., Indianapolis, Ind.; plumbing and gasfitting, West Virginia Heating & Plumbing Co., Charleston; electric work, Fischer Bros. Co., Covington, Ky.; general contract (previously noted) let to Ragland-Baxter-Morford Co., Nashville, Tenn.

CITY AND COUNTY

Fla., Tampa.—Fire Station.—City is reported to have let contract at \$4600 to J. L. Roumillat, Tampa, to erect Tenth ward fire station; F. M. Curtis, Archt., Tampa. (Lately noted.)

La., Mermentau.—City Hall.—City let contract to Callahan Lumber Co. to erect city hall.

Tex., Houston.—City Hall Annex.—City let contracts as follows to erect city hall annex, according to plans by Sanguinet, Staats & Gottlieb and M. J. Sullivan, all of Houston: Antill & Baring, 2104 Main St., Houston, at \$129,901.55 for construction; J. B. plumbing; structure 2 stories and basement; fireproof; foundation to support 2 additional stories; 65x237 ft.; reinforced concrete; tar and gravel roof; vault; composition roof; steam heat. Address proposals to Antill & Baring. (Lately noted.)

DWELLINGS

Ala., Birmingham.—Mrs. W. H. Hitt, 1216 N. 13th St., let contract to F. Mann to erect dwelling; 9 rooms; ordinary construction; asbestos roof; hot-air heat; cost \$7000.

Ala., Mobile.—D. P. Bestor, Jr., will expend \$17,000 to erect residence; 83x55 ft.; hollow-tile walls; wood floors and partitions; Hutchisson & Denham, Archts., Mobile; contract (lately noted) let to F. H. Beaufort.

Ala., Mobile.—Jacob Reiss let contract to J. H. Osborne, Mobile, to erect residence; 37x77 ft.; ordinary construction; slate roof; cost \$8000; vapor steam heat to cost \$685; Hutchisson & Denham, Archts., Mobile; let following subcontracts: L. J. Labey, plumbing and heating; R. H. Bartell, painting, and Schenker-Allden Co., wiring. (Lately noted.)

D. C., Washington.—Middaugh & Shannon, Colorado Bldg., let contract to erect 8 dwellings on Shepherd St.; 6 rooms and bath. (Lately noted to cost \$30,000.)

Fla., Bartow.—Bartow Development Co. let contract to W. F. Hill, Bartow, to erect 6 bungalows.

Fla., Jacksonville.—H. W. Schmidt let contract to E. E. Lassere to erect 2-story frame residence; 30x46 ft.; cost \$4000.

Fla., Palm Beach.—Phlander C. Knox let contract to C. C. Lightbourn to erect residence.

Fla., Palm Beach.—Wm. J. Connors, Buffalo, N. Y., let contract to C. C. Lightbourn to erect residence.

Ga., Atlanta.—Mrs. H. Williams let contract to I. B. Eason & Son, Atlanta, to erect 2-story frame residence at 68 Highland View St.; cost \$3500.

Md., Baltimore.—Daniel C. Ammidon let contract to G. Walter Tovell, Eutaw and Dolphin Sts., Baltimore, to erect residence at Guilford; brick and stucco; concrete foundation; tile roof; Edw. L. Palmer, Jr., Archt., 408 Roland Ave., Roland Park, Md. (Lately noted.)

Md., Baltimore.—Harry D. Heitzman let contract to C. W. Littleton & Son, Liberty Heights and Clarendon Aves., Baltimore, to erect 2 dwellings at Bateman & Lawina aves.; 2 stories; brick; 26x35 ft.; cost \$4000.

Md., Easton.—C. T. Lipscomb let contract to Geo. E. Lane, Queenstown, Md., to remodel dwelling at Sunset; colonial style; ordinary construction; shingle or tin roof; cost \$10,000; steam heat to cost \$1500; gas lighting; Brinkloe & Canning, Archts., Easton.

Miss., Coldwater.—Lamar Callicott has plans by and let contract to C. E. Wright, Coldwater, to erect residence; 6 rooms; ordinary construction; cypress shingle roof; acetylene gas lighting; cost \$3000.

Mo., Chaffee.—Fred S. Easson let contract to Price & Millers, Chaffee, to erect residence; steam heat.

Mo., St. Louis.—H. C. Howard let contract to Bush-Burns Realty Co., St. Louis, to erect 2 two-story dwellings at 5767 and 5728 Waterman Ave.; cost \$8000.

Mo., St. Louis.—Theo. Jost let contract to Geo. Neff, St. Louis, to erect 2-story dwelling at 3917 Lee St.; cost \$4000.

N. C., Winston-Salem.—W. R. Petree let contract to J. H. Day to erect two 7-room dwellings; frame; shingle roof; cost \$3500.

Tenn., Chattanooga.—T. H. Lasley let contract to remodel residence; mott face brick; tile roof; steam heat; concrete floors; cost \$22,000; J. D. Alsop, Archt., James Bldg., Chattanooga.

Tenn., Memphis.—Mrs. I. Mendel let contract to Ozanne & Hinson to erect residence at 203 N. Camilla St.; cost \$11,000.

Tenn., Memphis.—J. C. Burkle, 834 N. 2d St., will expend \$5000 to erect dwelling at 147 Bickford Ave.; 54x38 ft.; mill construction; slate roof; hot-water heat; electric lighting; W. Brill Boon, Archt.; subcontracts let to Joe Meagher for brick work and R. Santer for roof; general contract (lately noted) let to J. E. Wright, 697 Woodland Ave., Memphis.

Tenn., Memphis.—Dr. B. L. Fagg let contract to J. W. Sanford, Memphis, to erect frame and stucco residence; cost \$3000.

Tenn., Memphis.—F. Faehrmann let contract to B. W. Cocke to erect brick-vener and stucco residence on Highland Ave.; automatic water pumping system; septic sewerage system; garage and servants' quarters; cost \$15,000; Regan & Weller, Archts., Memphis.

Tenn., Memphis.—Dave Derman let contract to F. C. Storey, Memphis, to erect residence at 788 Adams St.; brick; cost \$4000.

Tenn., Memphis.—G. C. Stoney let contract to F. C. Storey, Memphis, to erect residence at 1433 Peabody Ave.; cost \$4000.

Tenn., Memphis.—M. E. Clark let contract to J. A. Fincher to erect 2 brick-vener residences in Clark Pl.; cost \$12,000; Regan & Weller, Archts., Memphis.

Tex., Cleburne.—J. L. Williamson let contract to J. A. Thomas to erect residences; brick, tile and stucco; cost \$5000.

Tex., Galveston.—C. H. Anderson, 2303 Strand, has plans by and let contract to J. K. Deats, Galveston, to erect 10-room dwelling; cost \$6000; mill construction; slate roof; hot-air heat to cost \$500; electric lighting, \$250.

Tex., Hebronville.—W. P. Allen, Littlefield Bldg., Austin, let contract to Ewing & Magee, Corpus Christi, Tex., to erect dwelling; ordinary construction; cost \$6500. (Lately noted.)

Tex., Plainview.—W. E. Risser let contract to J. B. Maxey to erect residence on N. Archer St.; 26x36 ft.; 2 stories and basement; cost \$3500; shingle roof; hot-air heat; electric lighting; J. C. Goodwin, Archt.; lately noted. (See Machinery Wanted.)

Tex., Houston.—J. B. Westover, Pub. Mgr. for Levy Bros. Dry Goods Co., let contract to Frank Thielecke of Houston Co-operative Building Co., Houston, to erect 2-story Japanese bungalow on Broadway Blvd., Park Pl.; cost \$2500.

Tex., Taylor.—Herman Wolbreck let contract to R. W. Hope, Taylor, to erect \$5000 frame residence.

Va., Norfolk.—H. W. Johnson will expend \$5000 to erect dwelling; 42x68 ft.; ordinary construction; gravel roof; grates and stoves; cost of lighting \$125; sidewalks \$115; contract (lately noted) let to Lownsbey & Gardner, 615 Marshall Ave., Norfolk.

Va., Portsmouth.—Albert Engle, Supt. of Tidewater Knitting Mills, Prentiss Pl., let contract to A. B. Roane to erect 2-story residence at Court and Bart Sts.; cost \$7500.

Va., Richmond.—H. Beckstoffer will erect 2 frame dwellings at 1314-16 N. 28th St.; 20x48x22 ft.; tin roof; gas and electric lighting; cost \$4000; contract let.

Va., Salem.—G. R. Pierpont will erect brick residence; cost \$8000 to \$10,000; 10 rooms; G. R. Ragan, Archt., Roanoke, Va.; contract let to Sears & Brown, Salem.

W. Va., Wellsburg.—Elmer Hough let contracts as follows to erect residence: Carpenter work, Jno. Crabtree; lumber, Scott Lumber Co., Bridgeport, O.; brick, Toronto (O.) Fire Clay Co.

GOVERNMENT AND STATE

Ark., Searcy.—Postoffice.—Treasury Department, Oscar Wenderoth, Supervising Archt., Washington, let contract at \$41,407 to Wyatt & Cassidy, Columbia, Mo., to erect postoffice; 1 story, mezzanine and basement; non-fireproof except first floor; 3800 sq. ft. ground area. (Lately noted.)

D. C., Washington.—Courtrooms.—National Savings & Trust Co. let contract to erect building, of which two upper floors will be used by U. S. Court of Appeals. (See Bank and Office.)

Ky., Bardstown.—Postoffice.—Treasury Department, Oscar Wenderoth, Supervising Archt., Washington, let contract at \$56,428 to Roger & Kaiser, Chicago, to erect postoffice. (Previously noted.)

Mo., Booneville.—Postoffice.—Treasury Department, Oscar Wenderoth, Supervising Archt., Washington, D. C., let contract at \$47,787 to Potters Lumber Co., East Liverpool, O., to erect postoffice; limestone and granite; 1 story and basement; 4000 sq. ft. ground area; fireproof except roof; McCarty & Bulford, Archts., Hartman Bldg., Columbus, O. (Lately noted.)

Tenn., Morristown.—Postoffice.—Treasury Dept., Oscar Wenderoth, Supervising Archt., Washington, D. C., will expend \$70,000 to erect postoffice building; 50x75 ft.; fireproof; steam heat; contract (lately noted) let to Geo. W. Stiles Construction Co., 1036 Rookery Bldg., Chicago, Ill.; contractor invites subbids on all lines of work.

Tex., San Angelo.—Postoffice.—Custodian of postoffice let contract to Wilson Paint Co., San Angelo, to repaint interior and rebronze metal radiators. (Lately noted.)

HOTELS

Miss., Philadelphia.—Rush & Stribling let contract (including plumbing, heating and electric wiring) to Burkes Construction Co., Hattiesburg, Miss., to erect hotel; brick; plaster walls; tin roof; cost \$30,000; all material ordered and subcontracts let. (Lately noted.)

Mo., Kennett.—John Gaisford, Archt., Memphis, Tenn., let contract to erect \$6000 addition to Decker Hotel to double capacity.

Tex., Galveston.—W. B. Munson let contract to erect hotel and store building. (See Stores.)

MISCELLANEOUS

Ala., Birmingham.—Billards.—R. D. Burnett let all contracts to remodel billiard hall at 1820 2d Ave.; cost \$10,000. (Lately noted under Stores.)

D. C., Washington.—Lincoln Memorial.—Colorado Yule Marble Co., Marble, Col., has contract for exterior marble, and Fenton Construction Co., Knoxville, Tenn., for interior marble for Lincoln Memorial; 256x187 ft.; 90 ft. high; 1½-in. slate roof; steam heat; Geo. A. Fuller Co., Gen. Contr., Munsey Bldg., Washington; Henry Bacon, Architect, 101 Park Ave., New York. (Other contracts lately noted.)

RAILWAY STATIONS, SHEDS, ETC.

Ga., Thomasville.—Atlantic Coast Line R. R., E. B. Pleasants, Ch. Engr., let contract to Little & Phillips, Cordele, Ga., to erect passenger station; brick; shed entire length; 210x34 ft.; ordinary construction; slate roof; steam heat; electric lighting; granolithic sidewalks; cost \$27,000. (Lately noted.)

Okla., McAlester.—Chicago, Rock Island & Pacific Ry., C. A. Morse, Ch. Engr., Chicago, is reported to have let contract to T. E. Lenke Construction Co., Chicago, to erect freight station; 2 stories; brick; to contain cold-storage freight division offices; reported cost \$75,000. (Lately noted.)

SCHOOLS

Ga., Vienna.—City let contract at \$24,103 to Smith Construction Co., Athens, Ga., to erect school; brick; steel trusses; steam heat; metal roof; 19 classrooms and auditorium; Bishop & Greer, Archts., Valdosta, Ga. (Lately noted.)

Ky., Columbia.—R. W. Browder, Russellville, Ky., will expend \$14,600 to erect boys' dormitory for Lindsay Wilson School; 37 ft. 8 in. by 90 ft. 8 in.; ordinary brick construction; metal roof; steam heat to cost \$1500; electric wiring, etc., \$300; Waller & Brodie, Archts., Hopkinsville, Ky.; contract lately noted let to J. C. Miller, Crocus, Ky. (See Machinery Wanted.)

Miss., Sumrall.—City will expend \$21,000 to erect school building; ordinary construction; Barrett specification roof; direct steam heat, plumbing and electric wiring to cost \$3500; Overstreet, Spencer & Paine, Archts., Jackson, Miss.; contract for heating, plumbing and wiring let to S. T. Carnes, Laurel, Miss.; general contract (lately noted) let to Burkes Construction Co., Hattiesburg, Miss.; all orders for material placed and sub-contracts let.

Mo., Kansas City.—Board of Education let following subcontracts for Central High School: E. D. Hornbrook, Kansas City, plumbing; J. E. Turner, plastering; Corrugated Bar Co., rolled steel; J. M. Hessing, St. Louis, metal lath; United Sash Co., metal sash; Kansas City Portland Cement Co., cement; National Terra-Cotta Co., Kansas City, terra-cotta; W. S. Dickey, Kansas City, hollow tile; Mr. Coplan, St. Louis, ventilating; Louis Breitig & Son, 3701 W. Prospect Pl., Kansas City, general contractors. (Other contracts previously noted.)

Mo., Kansas City.—Board of Education will expend \$22,000 to erect addition to Linwood School; 45x97 ft.; fireproof; composition roof; heating and lighting let separately; Chas. A. Smith, Archt., Kansas City; contract (lately noted) let to Fogel Construction Co., 516 Reliance Bldg., Kansas City.

N. C., Wilmington.—Board of Education receives bids Apr. 6 at office of J. F. Leitner, Archt., Wilmington, for heating and ventilating for Southside school; general contract (lately noted) let to Wallace & Osterman at \$21,475, and to H. E. Longley at \$1331 for plumbing. (See Machinery Wanted.)

Tenn., Chattanooga.—City let contract to Chambers & Son, Chattanooga, to erect high-school addition; 49x72 ft., with wing 23x16 ft.; cost (without mechanical equipment) \$13,668; mill construction; Carey's roof; heating and lighting not in general contract; subcontracts let to C. W. Wells, Joe Baum, Tennessee Iron & Supply Co. and Frank Souan; John L. Snoddy and Louis H. Bull, Archts., James Bldg., Chattanooga. (Lately incompletely noted.)

Tex., Charlotte.—City let contract to Mr. Carlisle, San Antonio, to erect \$20,000 school.

Tex., Houston.—Jas. Stewart & Co., Houston, general contractors for Wm. Rice Institute Buildings, let contract to J. W. O'Connell Painting Co., St. Louis, Mo., for painting on physical laboratory. (Other contracts lately noted.)

Tex., Tolar.—City let contract to erect school; 2 stories and basement; 11 rooms. Address The Mayor.

Tex., Whitewright.—School Board let contract to Hughes & Furry, Oklahoma City, Okla., to erect high school; 2 stories and basement; mill construction; tar and gravel roof; heaters; T. J. and J. O. Galbraith, Archts., Hillsboro, Tex. (Lately noted.)

STORES

Ala., Falco.—M. J. Berman will expend \$5000 to erect store; 40x100 ft.; brick; tin roof; fireplaces; contract lately noted let to J. A. Conway, Andalusia, Ala.

Fla., Plant City.—W. B. Herring let contract to R. E. Fletcher, Plant City, to erect building on S. Drae St.; brick. (Lately noted.)

Fla., Plant City.—Mrs. A. Harrell let contract to R. E. Fletcher, Plant City, to erect store, theater and office building; 52½x100 ft.; ordinary construction; Barrett's 5-ply gravel roof; cost \$9000. (Lately noted.)

Ga., Atlanta.—J. S. Floyd let contract to T. C. and Paul Wesley, Atlanta, to erect addition and repair building at 35 E. 15th St.; cost \$12,300.

Ky., Hickman.—A. A. Faris let contract to W. J. Spradlin to erect business building; brick; 2 stories; plate-glass fronts.

La., Lake Charles.—Marianite Sisters of the Holy Cross let contract to J. A. Petty to erect convent and school on Ryan St.; 72x191 ft.; ordinary construction; composition roof; low-pressure steam heat; Pavrot & Lyaudais, Archts., 505 Perrin Bldg., New Orleans. (Lately noted.)

Miss., Petal.—W. S. McKinnon has plans by and let contract to W. P. Kelton, Petal, to rebuild store reported burned at Miss. Hattiesburg; 30x50 ft.; brick; galvanized metal roof; cost \$3000.

Mo., St. Louis.—Muth Realty Co. let contract to W. Champion to repair store and hall at 4100-10 Choteau St.; cost \$6000.

Mo., St. Louis.—O'Fallon estate let contract to T. C. Reeves to repair store at 415 N. 4th St.; cost \$10,000.

Mo., St. Louis.—Welfare Realty Co. let contract to J. Grewe Construction Co. to erect 1-story mercantile building at 3040-42 Locust St.; cost \$5400.

Tenn., Memphis.—E. J. Jansen let contract to Ed. Abele to erect plaster partitions and new front in building at 64 S. Main St.; cost \$2000.

Tenn., Memphis.—Mrs. K. Hamilton let contract to R. F. Cresson to repair building at 92 S. Main St.; cost \$4000.

Tenn., Memphis.—Saul Isenberg let contract to J. C. Jones to erect store and flat at Madison Ave. and Cleveland St.; cost \$15,500.

Tex., Aransas Pass.—R. H. McGuire let contract to O. H. Parsons to erect mercantile building on Commercial St.; 25x80 ft.; 2 stories; brick; composition roof; electric lighting; no heating plant; cost \$4000; Robb & McBride, Archts.

Tex., Bay City.—P. G. Huston let contract to W. B. Martin, West, Tex., to erect business building; 1 story; brick; 25x100 ft.

Tex., Cameron.—John W. Gandy let contract to erect store building; brick; 60x100 ft.

Tex., Chreno.—Allan Moss let contract to Shearer & Yates, Lufkin, Tex., to erect brick building at East and Main Sts.

Tex., Dallas.—J. G. Poe will erect 1-story brick store at 4600 Bryan St.; 52x50 ft.; contain 2 storerooms, 21x50 ft. and 28x50 ft.; semi-fireproof; gravel roof; cost \$3500; contract let to F. A. Yeager, 530 Sunset Ave., Dallas.

Tex., Galveston.—W. B. Munson, Denison, Tex., let contract to Coyle Bros., Galveston, to erect store and hotel; 120x75 ft.; 2 stories; cost (without mechanical equipment) \$23,000; ordinary construction; composition roof; L. S. Green, 1111 Annex Insurance Bldg., Galveston, Archt. (Lately noted.)

Tex., Gollad.—Dr. Chilton let contract to Ellis, Roy & McCarty, Gollad, to erect store building; 2 stories; 32x80 ft.; ordinary construction; tin roof; cost \$5500. (Lately noted.)

Tex., Palacios.—Jules Leffland, Victoria, prepared plans for \$14,000 building.

Tex., Wharton.—A. A. Cline let contract to Pickard & Parsons, Wharton, to erect business buildings 40x60 ft. and 30x54 ft.; 1 and 2 stories; ordinary construction; gravel roof; cost \$13,000; Jules Leffland & Son, Archts., Victoria, Tex. (Lately noted.)

W. Va., Martinsburg.—Louis E. Gerling is reported to have let contract to Burns Lumber Co. to erect building; 3 stories; cost \$7500. (Lately noted.)

THEATERS

Fla., Plant City.—Mrs. A. Harrell let contract to erect theater, etc. (See Stores.)

WAREHOUSES

Fla., Jacksonville.—Florida Builders' Supply Co. (Thos. W. Mitchell and M. W. Venable, Proprs.) is reported to have let contract to Florida Schub Concrete Construction Co., Jacksonville, to erect building at Myrtle Ave. and Beaver St.; 2 stories; reinforced concrete; cost \$10,000.

Md., Baltimore.—Lewis E. Bear & Co., 5-11 W. Conway St., let contract to Henry S. Ripple, 1-7 Clay St., Baltimore, to erect addi-

tional story to buildings at 6-8 W. Conway St.; brick; 51x40 ft.; slag roof; cost \$5000; Frank & Kavanaugh, Archts., 328 N. Charles St., Baltimore.

Tenn., Memphis.—A. S. Pritchard will expend \$37,000 to erect warehouse at 16 S. Lauderdale St.; 236x38 ft.; 3 stories and basement; fireproof; Bartholomew roof specified; Hanker & Cairns, Archts., Scimitar Bldg., Memphis; subcontracts amount to \$12,000; contract (lately noted) let to Ferro-Concrete Construction Co., Cincinnati, O.

W. Va., Parkersburg.—Parkersburg Transfer & Storage Co. let contract to L. Schreier & Sons, Cincinnati, O., for steel work for addition to plant; D. W. Darley, Archt.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—Dunn & Lallande of Birmingham have been awarded a contract by the Louisville & Nashville R. R. to build a 5-mi. branch from Talladega Springs, on the Birmingham Mineral R. R., to a marble quarry.

Ala., Boaz.—Jordan & Phillips, contractors for the first 12 mi. of the Birmingham & Chattanooga R. R., have graded 2 mi. out of Boaz and are pushing work on the rest. Boaz to Chattanooga is 86 mi. J. M. Spradlin of Boaz is Pres. and W. W. Shortridge of Birmingham is V.-P. and Secy.

Ark., Combs.—Burke & McNeerney of Fort Smith, Ark., have nearly finished an 18-mi. contract on the Black Mountain & Eastern Ry., running out of Combs. J. H. Phipps Lumber Co. of Fayetteville, Ark., owns the line, which connects Fayetteville with the Frisco system at Combs.

Ala., Coy.—The Vredenburgh Sawmill Co. has completed its railroad to Coy via Ashel, 12 mi., and is operating passenger and freight trains through to Corduroy, 20 mi., connecting there with the Louisville & Nashville R. R. Peter Vredenburgh, Jr., Vredenburgh, Ala., is general manager.

Fla., Daytona.—Prest. Michael Sholtz of the Central of Florida Ry., says a report, announces that an extension will be built this summer south of Daytona to Allendale.

Fla., Jacksonville.—Canadian capitalists are reported investigating with a view to construction of an interurban electric railway from Jacksonville to Orlando, Kissimmee, Sanford and other points. The Jacksonville Chamber of Commerce may be able to give information.

Ga., Moultrie.—Moultrie & Pelham R. R. Co. has applied for charter to build a line from Moultrie via Funston, Hartfield and Cairo to Pelham, Ga., about 50 mi. J. L. Hand of Pelham, Ga., and others are the incorporators.

La., Kenner.—Tracklaying has begun on the Orleans-Kenner Electric Interurban Ry. A. Smith Bowman is Pres.; Andrew Fitzpatrick, V.-P., and H. K. Johnson, Ch. Engr.

La., Mansfield.—Mansfield & Northeastern Ry. Co. is to build a line from Naborton to a new oil field, about 3 mi. L. H. Bell, Sr., Ch. Eng. Mansfield Ry. & Transportation Co., may give information.

Md., Cumberland.—Cumberland & Westernport Electric Ry. Co. proposes to make improvements to cost \$127,000 as soon as possible. Ferdinand Williams, Cumberland, Md., is president.

Md., Millersville.—Preliminary survey is practically complete for the proposed line of the Baltimore & Virginia R. R. Co. from Millersville to Drum Point, Md., about 55 mi. H. M. Knight, of Knight, Williams & Stewart, Rome, N. Y., is Engr. A bill has been introduced in the Maryland Senate to authorize Baltimore city to indorse bonds of the line up to \$500,000. D. B. Stewart, Pres. of the Stewart Fruit Co., Baltimore, is V.-P. of the railroad company. Construction is to begin as soon as possible.

Md., Salisbury.—A bill has been introduced in the State Senate at Annapolis to incorporate the Salisbury Interurban Ry. Co., capital stock \$100,000, to build a line from Nanticoke Point, or some other place on the Nanticoke River, upon the western side of Wicomico county, to Willards, on the eastern side of the county, via different towns and villages, 35 or 40 mi.; incorporators, E. Riall White, H. James Messick, Wade H. Bedsworth, Raymond K. Truitt, Henry W. Ruark, Wade H. Insley and Mark Cooper, all of Wicomico county, of which Salisbury is the county-seat.

Md., Salisbury.—Chas. R. Disharoon of Salisbury, member of the House of Delegates, has introduced in the Legislature at Annapolis a bill to incorporate the Eastern

& Western Shore R. R. Co., which proposes to build an electric railway from Annapolis southward to Fair Haven, Md., and to operate a ferry across Chesapeake Bay to a point in Dorchester county, thence building another electric railway to Cambridge, Vienna, Sharptown, Salisbury and Ocean City, Md., and Franklin City, Va. There will be a branch from Salisbury to Crisfield, Md. It is also planned to build from Fair Haven to Washington, D. C. It is provided that the next General Assembly, two years hence, must approve the plans. About 200 mi. of line would be built. Washington capitalists are said to be interested.

Miss., Pascagoula.—The Pascagoula, Moss Point & Northern R. R. Co. proposes to build an extension from Evanston, Miss., to either Lucedale or to a connection with the Alabama & Mississippi R. R. Stewart Starr is general manager.

Mo., Kingston.—Caldwell County & Southern R. R. Co. is chartered with \$100,000 capital stock to build a line from Kingston to Hamilton, Mo., about 9½ mi., to connect with the Burlington system. David Miller of Kansas City is the principal stockholder, others interested including Perry Roberts of Hamilton, F. L. Brown, H. C. Shively and S. C. Rogers of Kingston, Mo.

N. C., Blowing Rock.—T. H. Coffey of Blowing Rock and others are considering the possibility of building an electric railway from Lenoir along the turnpike to Blowing Rock and thence to Boone, N. C., altogether about 25 mi., and David R. Shearer, Knoxville, Tenn., recently investigated the water-power of the Yadkin River near the foot of the mountains with a view to building a hydro-electric power plant.

N. C., Kenansville.—Considerable grading has been done and track laid on the Atlantic, Carolina & Western R. R., says a report, between Warsaw, on the Atlantic Coast Line, and Kenansville, 8 mi., and it is expected to soon begin operating. L. A. Beasley, Kenansville, N. C., may give information.

N. C., King.—W. D. Wilcox, Mgr. of the Dan River R. R. Co., has assembled engineers who are about to begin survey for its proposed line from King to Danbury, about 30 mi. H. D. Miller of Clemmons, N. C., is Pres.

N. C., North Wilkesboro.—Watauga & Yadkin River Ry. has laid 1½ mi. of track on extension from Elkville Junction toward Darby, N. C., 8 mi. on which grade is complete. It is further proposed to build from Darby to Boone, N. C., 26 mi., and thence to Butler, Tenn., on the Virginia & Southwestern Ry., 21½ mi. more. An extension from Grandin (the present terminus of the road, 22 mi. from North Wilkesboro) is projected to Lenoir, N. C., 16 mi., on which surveys have begun. It is reported that a branch to Todd, N. C., about 15 mi. northeast of Boone, may be built. W. J. Grandin, North Wilkesboro, N. C., is Pres.

N. C., Snow Hill.—Several residents of Snow Hill and vicinity have started a movement to build an extension of the Kinston-Carolina R. R. north from Snow Hill to Stantonburg to connect with the Norfolk Southern R. R., with which the first named line is affiliated. Wm. Hayes, Supt. of the Kinston-Carolina R. R. at Kinston, N. C., may be able to give information.

S. C., Spartanburg.—Greenville, Spartanburg & Anderson Electric Interurban Ry. Co. has completed and put in operation its extension from Greenville to Spartanburg, 32 miles.

Okla., Ardmore.—Amis & Deen of Guthrie, Okla., have the contract to extend the Oklahoma, New Mexico & Pacific Ry. from Wilson to Ringling, Okla., 11 mi. There will be 3 bridges. J. L. Hamon, Ardmore, is V.-P. and Gen. Mgr.

Tenn., Chattanooga.—Thrasher & Gunter of Knoxville, Tenn., who have the contract of

the Southern Ry. for construction of a line from Chattanooga 2 mi. to the tunnel on the Wauhatchie extension, will begin work immediately. It is expected that the completion of the extension to Stevenson, Ala., about 40 mi., will now be undertaken.

Tenn., Knoxville.—Southern Ry. contemplates construction of a spur to the proposed new foundry of the Fulton Co. at the intersection of Cumberland Ave. with Third Creek. W. B. Crenshaw is Pr. Asst. Engr. at Knoxville.

Tenn., Nashville.—Nashville Industrial Bureau and the Nashville Business Men's Association are considering a proposition for the construction of a railway from Nashville, Tenn., to Corinth, Miss., about 140 mi. The secretaries of these organizations may be able to give information.

Tex., Aransas Pass.—At a meeting of citizens, with John D. Wheeler, Pres. of the Chamber of Commerce, as chairman, and Marion Adams, secretary, a committee was appointed to solicit subscriptions to stock of a proposed construction company for building a railroad from Aransas Pass to Sinton, Tex., 26 mi.

Tex., Freeport.—Bids will be opened about May 1 (exact date not yet set) for a combination railroad and highway bridge to be erected over the Brazos River between Freeport and Velasco, Tex., by the Houston & Brazos Valley R. R. and Brazoria county, Tex. There will be two steel spans 125 ft. long and a swing bridge of 290 ft., on concrete piers and abutments. Estimated cost, \$125,000. Engineer in charge is C. A. Thauheiser, engineer maintenance of way, Missouri, Kansas & Texas Ry., Dallas, Tex.

Tex., Temple.—At the annual meeting of the Southwestern Traction Co., which proposes to build an interurban electric railway from Austin via Temple and Belton to Waco, Tex., about 109 mi., it was stated that construction is now assured. A. F. Bentley is Pres.; C. M. Simpson, 1st V.-P.; both of Temple; C. A. Goeth of Austin, 2d V.-P.; Artemus R. Roberts of Waco, 3d V.-P.; A. F. Zarr, Secy., and P. L. Downs, Treas., both of Temple. Several new directors were elected.

Va., Danville.—Pres. Fairfax Harrison of the Southern Ry. says plans are made to complete second track from Washington to Atlanta, of which about 35 per cent. is already built, designating a certain amount to be constructed each year. Estimated cost \$20,000,000. Work to begin in 60 or 90 days. A 650-foot concrete arch bridge will be erected over the Dan River at Danville. B. Hermann, Washington, D. C., is chief engineer.

STREET RAILWAYS

Ga., Columbus.—Columbus Street Ry. Co. proposes to relay some of its tracks with heavier rails. John S. Blecker is manager.

S. C., Chester.—S. E. Richardson, representing Georgia capital, is reported investigating with reference to constructing an electric railway at Chester.

Tenn., Nashville.—Nashville Traction Co. is building lines on Deaderick St. from Fourth to Fifth Ave., on 6th St. from Broadway to Commerce St., on Fifth Ave. between the same streets and along Commerce St. to Sixth Ave. Detroit & Nashville Construction Co. is contractor. Walter O. Farmer of Nashville is president of the railway.

Tex., San Angelo.—The San Angelo Street Ry. Co. will build several miles of extensions this year. J. D. Sugg is Pres.

Hydraulic Presses and Pumps.

A strikingly complete and well-illustrated publication has just been issued by the Hydraulic Press Manufacturing Co., Mount Gilead, O., on the subject of hydraulic presses and pumps for high pressure purposes. This is the company's catalogue No. 40, containing 123 pages, in which a statement of the scope and development of the company's business is given and a large amount of general information on hydraulic machinery is presented. In the first fifteen pages the company's home office, factory and branch office facilities are described and illustrated. The subsequent pages are devoted to describing and illustrating hydraulic presses and pumps. In the company's modernly equipped factory there are a number of devices for accurate and rapid production. Natural gas is used for power and light purposes by generating electricity. Riveting, chipping and cleaning are all done by compressed air. A track passes through the erecting shop, where the massive machines are loaded directly upon railway cars by powerful electric cranes for shipment. Information regarding the distribution of this catalogue may be obtained by addressing the company.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Air Compressor.—Carolina Machinery Co., Glen Rock Station, Asheville, N. C.—Prices on air compressor to operate 2 rock drills.

Air Compressors.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on compressors for plant at Paint Rock, Ala.

Ammunition Machinery.—H. Suppa, Avenida Del Sol 190, Lima, Peru.—Addresses of manufacturers of machinery for making ammunition.

Art Glass Windows.—College Hill M. E. Church South, Rev. Jesse Mitchell, pastor, R. F. D. No. 4, Texarkana, Ark.—Prices on art stained glass windows.

Bagging and Ties.—Hancock Wagon Co., Culverton, Ga.—Addresses of manufacturers of bagging for cotton bales and ties for same.

Belting.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of belting for 12-in. hydraulic dredge.

Bending Machinery.—R. A. Chapman, Engr. and Contr., Montgomery, Ala.—Data and prices on benders for reinforcing steel for beams; not too heavy or cumbersome; bend rods $\frac{1}{2}$ to 1 in. square.

Boiler.—Rome Furniture Co., B. T. Haynes, Pres., Rome, Ga.—Will probably need boiler.

Boilers.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on boilers for plant at Paint Rock, Ala.

Boiler.—S. C. Taylor, Boyle, Miss.—Prices on 150 H. P. boiler; installed by Aug. 15.

Boilers.—See Machinery.

Belting.—Perfection Laundry, R. M. Merritt, Mgr., Pensacola, Fla.—Prices on belting.

Bolt and Nut Manufacturers.—Thos. Tapling Dallow, 3 4th Ave., Small Heath, Birmingham, England.—Correspondence with bolt and nut manufacturers; view to representation.

Brick.—Marion County Court, John F. Phillips, Clerk, Fairmont, W. Va.—Bids until Apr. 14 to furnish paving brick or block for construction of about 23 mi. improved roads and streets in Fairmont Dist.; specifications and instructions to bidders on file in County Clerk's office, Fairmont, and Chas. & Armstrong, Fairmont, W. Va., and Washington, Pa.

Brick Machinery.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on machinery for plant at Paint Rock, Ala.; 15,000 daily.

Brick Machinery.—J. C. Miller, Crocus, Ky.—Prices on brick machinery.

Bridge Construction.—See Road and Bridge Construction, La., Lake Charles.

Bridge Construction.—Harris County, Tex., H. L. Washburn, County Auditor, Houston.—Bids until Apr. 3 to construct bridge on Crosby and Dayton Rd. and re-deck Cedar Bayou bridge on Crosby and Mt. Belvue; plans and specifications obtainable from Howe & Wise, Engrs., Houston; bids separately.

Bridge Repairs.—Tennessee River Bridge Com. of Hamilton County, Theo. F. King, Chmn., Chattanooga, Tenn.—Bids until Apr. 14 at office of County Judge for repairs to Walnut St. bridge across Tennessee River; will consist in removing present plank floor and sidewalk timber stringers supporting same, and placing steel stringers under each street-car rail, cross-tied timber stringers under roadway and sidewalks; roadway will be constructed of cross-tied wood blocks laid on cross-tied timber sub-floor, while sidewalk will be of untreated heart pine, spiked to cross-tied timber stringers; blank forms of proposals, plans and specifications on application at office County Engr.

Bridges.—John W. Seobey, Atty., Lake City, Ark.—Prices on 20 to 30 bridges for public roads to be purchased by four drainage districts of Craighead county at different times from now until close of 1915; structures to be from 40 to 100 ft. long.

Brushes.—W. C. Phillips, 19 Broad St., Jacksonville, Fla.—Wants 2 round machine brushes (parcel post C. O. D.); 3-in. diam., 1-in. width, 1x2-in. hub and 5-16-in. hole; brushes to be wired for cleaning flat material; bristles should be about stiffness of those found in ordinary cleaning brushes or buffing wheels, allowing them under pressure to cover flat surface of at least $1\frac{1}{2}$ in., and at same time work freely with proper power.

Building Materials.—Bank of Fort Pierce, Fort Pierce, Fla.—Prices on Bedford stone, copper cornice, buff impervious press brick and common brick.

Cable, Wire, Rope, etc.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to burnish 15 tons raw bone-meal, 100 tons limestone, $1\frac{1}{2}$ tons nitrate of potash, 5 tons nitrate of soda, 15 tons of pulverized tankage, schedule 6575; delivery Navy-yard, Annapolis, Md.; 28 worm-gear blocks, schedule 6591; 38 copies of printing of booklet, schedule 6584; 4000 ft. phosphor bronze cable, schedule 6585; 204 silver boatswain's call, 1800 globes for hand lanterns, 110 deck light lenses, 2500 yds. mosquito netting, 30 rain bath showers and 1 dishwasher, schedule 6593; 50,000 ft. double conductor telephone cord, schedule 6595; 4 electric exhaust fans, schedule 6573; 5 vitreous lavatories, schedule 6589; 3700 lbs. clean rags, 600 gals. castor oil, 4 fuel oil-testing outfits, schedule 6597; 2800 ft. plow steel wire rope, schedule 6591; 50,000 ft. double conductor telephone cord, 2000 ft. single conductor plain wire, 3100 lbs. No. 10 copper wire, schedule 6595; 2000 lbs. weather-proof wire, schedule 6589; delivery Navy-yard, Brooklyn, N. Y.; miscellaneous lot steel filling cases, etc., schedule 6581; 1000 lbs. rigging leather, schedule 6593; delivery Navy-yard, Boston, Mass.; 40 No. 150 crucibles, schedule 6597; 1440 ft. crucible steel wire rope, schedule 6584; delivery Navy-yard, Norfolk, Va.; 1 dishwasher, schedule 6582; delivery Great Lakes, Ill.; 58 boxes window-glass and 70 lbs. bellows leather, schedule 6593; delivery Navy-yard, Philadelphia, Pa.; miscellaneous lot plowing, grading, etc., schedule 6602; delivery Navy-yard, Radio, Va.; 300 gals. pure sperm oil, schedule 6583; 2800 gypsum plasterboard and 33 tons cement plaster, schedule 6574; miscellaneous lot of bronze valves and bushings, schedule 6577; delivery Navy-yard, Newport, R. I.; miscellaneous lot of radiators, etc., water-closets, etc., schedule 6580; delivery Iona Island, N. Y.; for copies of schedules apply to navy pay office nearest navy-yard.

Cans.—Armour & Co., Norton, Va.—Prices on quantity of syrup cans.

Cars.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Prices on standard gauge and narrow dump cars. (See Quarrying Equipment.)

Cars.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 6 side dump cars, schedule 6601; delivery Navy-yard, Washington; for copies of schedules apply to navy pay office nearest navy-yard.

Cement.—Earl Swartzwelder, Box 22, Albright, W. Va.—Prices on cement in car-load lots, delivered Bedford, Pa.

Cement.—U. S. Engr. Office, J. P. Jervy, Maj., Engr., Wheeling, W. Va.—Bids until Apr. 28 to furnish and deliver about 7000 bbls. American Portland cement for dam No. 28, Ohio River. Information on application.

Church Furniture.—R. W. Edmondson, Dudley Rd., Parkersburg, W. Va.—Prices on church furniture for \$3000 building.

Church Furniture.—College Hill M. E. Church South, Rev. Jesse Mitchell, pastor, R. F. D. No. 4, Texarkana, Ark.—Prices on pulpit outfits and communion rails.

Concrete Construction.—U. S. Engr. Office, H. Jervy, Lieut.-Col., Engrs., 415 Custom-house, Cincinnati, O.—Bids until Apr. 27 to reconstruct in concrete top of dams Nos. 1 and 4, Muskingum River, and

strengthening their foundation. Information on application.

Concrete Mixer.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 28 to furnish concrete mixer, schedule 6569; delivery Navy-yard, Puget Sound, Wash.; for copies of schedules apply to navy pay office nearest navy-yard.

Conveyor.—Dan River Brick Co., Winston-Salem, N. C.—Prices on conveyor system to load brick from kiln to cars.

Conveying Machinery.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on conveyors.

Cotton Machinery.—Wm. Grey Maxwell, 1236 Post St., San Francisco, Cal.—Addresses of manufacturers of cotton carding and spinning machinery.

Cutters.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of cutters for 12-in. hydraulic dredge.

Crane.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 1-ton traveling crane, schedule 6578; delivery Portsmouth, N. H.; for copies of schedule apply to navy pay office nearest navy-yard.

Crane.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Prices on overhead traveling crane between 40 and 60 ft. span; capacity between 15 and 30 tons. (See Quarrying Equipment.)

Crushers.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on crushers for stone and lime plant at Paint Rock, Ala.; 40 tons daily.

Cycle Car Equipment.—National Cycle Car Co., A. L. Gray, Pres., 1007 Realty Bldg., Louisville, Ky.—Correspondence with manufacturers of equipment and supplies in connection with manufacture of cycle cars or parts thereof.

Drainage Canal.—Madison County Commissioners, A. W. Stovall, Chmn., Jackson, Tenn.—Bids until Apr. 22 to clear right of way 200 ft. wide and dig drainage canal 57,229 ft. long; about 1,046,765 cu. yds. earth to be removed; maps and profiles may be seen on application.

Dredging.—Drainage Dist. No. 1 of Gibson County, Trenton, Tenn.—Bids until Apr. 15 for 1,164,000 cu. yds. dredge work; specifications obtainable from Lund & Hill, Consulting Engrs., Little Rock, Ark.

Dredging.—Bureau of Yards and Docks, H. R. Stamford, Chief, Navy Dept., Washington, D. C.—Bids until Apr. 18 for dredging at Navy-yard, Puget Sound, Wash.; \$4000 available; plans and specifications obtainable from bureau or commandant of Navy-yard, Bremerton, Wash.

Drills.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on drills for stone-crushing plant, etc., at Paint Rock, Ala.

Dynamite Fuse, etc.—Isthmian Canal Com., F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until Apr. 18 to furnish dynamite safety fuse, blasting caps, detonators, induction motors, transfer car and trucks for drykilns, wire cable, reinforcing bars, steel, rivets, bolts, track spikes, nails, cable clips, track chisels, bronze wire cloth, axes, paint brushes, floor brushes, steel wire brushes, ratchet braces, portable forges, tackle blocks, buckets, ice-cream freezers, fire brick, magnesia pipe covering, chair seats, emery cloth, steel squares, lumber crayons, library paste, rubber bands, cardboard, paper, and grain alcohol; blanks and general information relating to this circular (837) may be obtained from this office or offices of assistant purchasing agents, 21 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Electrical Equipment.—R. B. Rockwell, Engr., Byrd-Matthews Lumber Co., St. Louis, Mo.—Prices on 110-125 H. P., 60-cycle, 3-phase, 840-volt, revolving field, alternating current generator, belt-driven, slow speed; also 80-100 H. P. motor to be driven by this generator. High-speed motor to operate planing mill; prices on second-hand machines; for use at sawmill, Helen, White county, Ga.

Electric Installation.—White Way Comm., Chamber of Commerce, Louis Spencer Daniel, Secy., Cordele, Ga.—Bids on electric plant to operate 125 to 150 white-way posts of 3000 C. P. each; have boiler; cost \$5000; plant to include dynamo, engine,

switchboard, generator and 900 ft. connecting wire to run from plant to beginning of white-way system; 5-lamp post preferred, weight about 500 to 600 lbs.; quantities and cost f. o. b. Cordele and installed; purchase probably within 10 days.

Electric Motors.—Chipley Light & Power Co., E. H. Hale, Mgr., Chipley, Fla.—Prices on motors, 60-cycle, 3-phase, 110 to 125 volts.

Electrical Machinery.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids until Apr. 21 to furnish 100 portable hooks and 6 portable voltmeters, schedule 6434; delivery Navy-yard, Brooklyn, N. Y.; miscellaneous lot insulators, 31 120-volt flat electric irons, miscellaneous lot electric soldering irons, mica and pressed mica plate and non-water-tight attachment plugs, etc., 20 portable ventilating sets and miscellaneous lot of magnet wire, schedule 6434; delivery Navy-yards, East and West; 175 lbs. hard sheet rubber, delivery Navy-yard, Mare Island, Cal.; 120 keyless sockets, cat. 59,354, schedule 6434; delivery Navy-yard, Puget Sound, Wash.; 45,000 2-hole wire terminals, delivery Navy-yards, Boston, Mass., and Norfolk, Va.; miscellaneous lot terminal and studing tubes, schedule 6434; delivery Navy-yard, Norfolk, Va.; for copies of schedule apply to navy pay office nearest navy-yard.

Electrical Machinery.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 28 to furnish 20-motor generating testing sets, schedule 6570; delivery Navy-yards, East and West; for copies of schedules apply to navy pay office nearest navy-yard.

Electrical Machinery.—Theo. M. Sanders, Little Rock, Ark.—Data and prices on electric generators.

Electrical Machinery.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 5 to furnish 2 turbo-generating sets, schedule 6564; delivery Navy-yard, Mare Island, Cal.; for copies of schedules apply to navy pay office nearest navy-yard.

Electrical Machinery.—Comptoir General d'Exportation, 62 Rue d'Hauteville, Paris, France.—Data and prices on accumulator battery, 600 amperes hours, in connection with dynamo measuring 2x115-2x175 volts; price quoted to comprise all data for accessory apparatus; negative and positive contact boards; height, width and depth of apparatus included; exact quantity of acid at 66 degrees Baume, character of insulators, etc.; cost of mounting and putting battery in operation; wooden cells lined with lead for making acid mixtures; cells of 13 cu. meters contents; 4 granite containers or holders; 2 pairs rubber gloves; 4 specific gravity measures; 1 voltmeter graduated from 0 to 5 volts; electrically heated still to produce continuously 25 liters of distilled water each hour; 1 form for charging and discharging battery and accessories; iron plate for battery; white marble square; 2 electro-magnetic amperes meters up to 300 amperes; electro-magnetic amperes meter, 200 amperes; electro-magnetic voltmeter up to 350 volts; bipolar commutator of 5 phases for voltmeters; tripolar interrupter with circuit of 300 amperes; necessary cables for cutting in and out battery from switchboard; estimator for accumulators for 700 amperes and another for 300 amperes.

Electrical Turbines.—Andrews Trading Co., Gainesville, Fla.—Addresses of manufacturers of turbines for water-powers to generate electricity for electric railways.

Electric Wiring, etc.—J. C. Miller, Crocus, Ky.—Prices on electric wiring and fixtures.

Engines.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on engines for plant at Paint Rock, Ala.

Engines.—J. C. Peck, Box 562, High Point, N. C.—Addresses of manufacturers of or dealers in double throttle reversing steam engines.

Engine.—Rome Furniture Co., B. T. Haynes, Pres., Rome, Ga.—Will want prices on engine.

Engine.—S. C. Taylor, Boyle, Miss.—Prices on 100 H. P. engine; installed by Aug. 15.

Engine.—Huntsville Lumber Co., J. G. Ashford, Pres., Huntsville, Tex.—Prices on 10 or 12 H. P. gasoline engine.

Engines.—See Machinery.

Engine.—C. J. Morrow, Garland Lumber Co., Garland, N. C.—Prices on 80 H. P. engine. (See Sawmill Equipment.)

Engines.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of engines for 12-in. hydraulic dredge.

Engines.—Theo. M. Sanders, Little Rock, Ark.—Data and prices on gasoline engines.

Excavating.—Harris County, H. L. Washburn, County Auditor, Houston, Tex.—Bids Apr. 6 to level off and excavate 4500 cu. yds. dirt and furnish material for bridge, about 7500 ft. B. M. at South Houston, as per plans and specifications on file with Auditor and Engr.; also excavating and disposing of 850 cu. yds. dirt, Richmond Rd. and Reynolds Ave. ditch, and lowering and placing to grade one sewer pipe culvert.

Flooring.—J. A. Jones, Charlotte, N. C.—Prices on hardwood flooring for \$70,000 building at Spartanburg, S. C.

Foundry Equipment.—A. Fabregat, Sombrieres 13, Barcelona, Spain.—Correspondence (view to agency) with manufacturers of foundry supplies and equipment.

Foundry Machinery.—Morrison Frogless Switch Co., J. C. Morrison, Secy., 519 American Trust Bldg., Birmingham, Ala.—Bids July 15 to install machinery at Tuscaloosa (Ala.) plant to manufacture frog and switch and kindred appliances.

Furniture.—See Church Furniture.

Gas Producers.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of gas producers for 12 in. hydraulic dredge.

Gauges.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 157 air pressure gauges, schedule 6577; delivery Newport, R. I.; for copies of schedules apply to navy pay office nearest navy-yard.

Grading.—Madison County Highway Com., Marshall, N. C.—Probably advertise for bids Apr. 6 to grade 8.3 mi. road; surveys completed; contract let about Apr. 22; \$150,000 of \$300,000 bond issue available; J. B. Chingman, County Road Engr.

Grading, etc.—Mobile County Comms. and Board of Revenue, Mobile, Ala.—Bids until Apr. 29 to grade and surface Spring Hill Ave. from Catherine St. to Moffett Rd.; plans and specifications at office of F. McCure, County Engr., Bank of Mobile Bldg., Mobile.

Gymnasium Equipment.—See Manual Training Equipment.

Hardware.—C. E. Johnston & Co., 22 West St., Port Antonio, Jamaica, B. W. I.—Correspondence (view to agency) with manufacturers of hardware.

Hardware, etc.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 150 handled chopping axes, miscellaneous handled soldering coppers, hardware and tools, etc.; chest hasps and staples, 170 tinner's hand shears, schedule 6581; 1100 ft. 1½-in. rubber fire hose, 325 ft. 1½-in. rubber water hose, schedule 6597; 700 ft. lined linen fire hose, 1200 ft. ¾-in. rubber garden hose, 153 ft. suction hose, 8400 ft. wash deck hose, schedule 6592; delivery Brooklyn, N. Y.; for copies of schedules apply to navy pay office nearest navy-yard.

Heating Plant.—G. W. Ransom, 1112 Forest Ave., Memphis, Tenn.—Prices on steam heating plant to heat 9 to 10-room dwellings.

Heating Plant.—J. B. Maxey, Plainview, Tex.—Prices on hot-water heating plant.

Heating and Ventilating.—Board of Education, Wilmington, N. C.—Bids Apr. 6 at office of J. F. Deltner, Wilmington, for heating and ventilating for Southside school.

Hinge Machinery.—Robt. H. Roney, Box 132, Burlington, N. C.—Addresses of manufacturers of machinery to manufacture patent hinge.

Hoists.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 12 spur-gear chain hoists, schedule 6585; delivery Norfolk, Va.; 12 1½-ton trolley hoists, schedule 6577; delivery Newport, R. I.; for copies of schedules apply to navy pay office nearest navy-yard.

Hoists, etc.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 14 to furnish 8 worm-gear chain blocks, 500 5-gal. tin cans and 13 spur-gear chain hoists, schedule 6587; delivery Navy-yard, Philadelphia, Pa.; 1090 lbs. copper tubing, schedule 6588; delivery Navy-yard, Brooklyn, N. Y.; miscellaneous lot of cold-drawn steel and 87,000 lbs. hot-rolled or forged steel, schedule 6586; delivery Navy-yard, Washington, D. C.; for copies of schedules apply to navy pay office nearest navy-yard.

Knitting Machinery.—Georgia Lumber Mfg. Co., National Bank Bldg., Savannah, Ga.—Knitting mill equipment; medium capacity; prefer slightly used; proper working order.

Knitting Machinery.—Wm. Grey Maxwell, 1226 Post St., San Francisco, Cal.—Addresses of manufacturers of knitting machinery.

Lime Machinery.—See Crushers.

Locomotives.—Geo. J. Adams, 39 South St., New York.—Prices on saddle tank switch engine, standard gauge, 35 to 40 tons; also Mogul freight engine, about 80 tons, second-hand.

Lithographing, etc.—Dept. of Interior, U. S. Patent Office, Washington, D. C.—Bids (in quadruplicate) until Apr. 27 for producing, in Washington, during fiscal year ending June 30, 1915, copies of drawings of pending applications and patents, and of foreign patents, papers and exhibits by photographic or other process; also until same date for producing during same year by photolithographic or other process copies of drawings of weekly issue of patents; for reproduction of exhausted copies of drawings and specifications, etc., to be assembled, stapled, banded and numbered, and for reproduction of foreign patents; specifications and specimens, with proposal forms, furnished on application to Chief Clerk of Patent Office; Thos. Ewing, Commr.

Lumber.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 40,000 ft. basswood, schedule 6590; delivery Portsmouth, N. H.; miscellaneous cypress molding, etc., schedule 6574; 5000 ft. tongued and grooved white pine, schedule 6583; 700 cross oak ties, schedule 6572; delivery Newport, R. I.; for copies of sched-

Washington, D. C.—Bids Apr. 21 to furnish 3360 lbs. soft sheet brass, 1500 lbs. soft sheet copper, schedule 6596; 9350 lbs. 1 15-16 in. rolled bronze, schedule 6577; 250 ft. 6x1-32 in. strip copper; delivery Brooklyn, N. Y.; for copies of schedules apply to navy pay office nearest navy-yard.

Metal Lath.—Stanton Foundry & Machinery Co., Palatka, Fla.—Dealers' prices and samples of metal lath for use on interior of residences; to be used in place of wood lath.

Metal-working Equipment.—See Bending Machinery.

Mining Machinery.—Canal Export Coal Co., 720 Brown-Marx Bldg., Birmingham, Ala.—Equipment for daily capacity 1000 tons coal.

Motor Cars.—See Cycle Car Equipment.

Oil Mill Machinery.—L. S. Gordon, Elizabeth City, N. C.—Addresses of manufacturers of machinery to make soya bean into oil and cake.

Paints, etc.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 18,000 gals. alcohol, 6000 gals. raw linseed oil, 18,000 lbs. Indian red, 20,000 lbs. Indian red, schedule 6594; delivery Norfolk, Va.; 3900 gals. paint drier, schedule 6594; delivery Norfolk, Va., and Philadelphia, Pa.; 1000 gals. aluminum paint, 180 gals. copper paint, 4330 gals. asphaltum varnish, 3100 gals. Damar varnish, 650 gals. inferior varnish, 850 gals. spar varnish and 750 lbs. artificial vermilion, schedule 6594;

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

We issue every Business Day in the Year THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

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ules apply to navy pay office nearest navy-yard; miscellaneous crossing plank oak and 9000 ft. Virginia and North Carolina pine, schedule 6576; delivery Washington, D. C.; 50 50-ft. creosoted piles, schedule 6579; delivery Norfolk, Va.; 18,000 ft. merchantable yellow pine, 16,000 ft. Idaho white pine and 90,000 ft. merchantable spruce, schedule 6590; 580 yellow pine or oak cross-ties, schedule 6579; delivery Brooklyn, N. Y.; 20,000 ft. select white pine, schedule 6590; delivery Boston, Mass.; for copies of schedules apply to navy pay office nearest navy-yard.

Machinery.—A. Fabregat, Sombrieres 13, Barcelona, Spain.—Correspondence (view to agency) with manufacturers of machinery, mechanical and electrical specialties.

Machinery Generally.—Leo H. Hearnshaw, 20 Bank St., Sheffield, Eng.—Correspondence (view to agency) with manufacturers of or dealers in machinery of all kinds.

Machinery Manufacturers.—Thos. Taping Dallow, 3 4th Ave., Small Heath, Birmingham, England.—Correspondence with machinery manufacturers; view to representation.

Manual Training Equipment.—Board of Education, R. S. Fellows, Secy., Tulsa, Okla.—Prices on manual-training equipment for boys' high school, including lathes, forge outfit, printing, domestic science and art and gymnasium equipment.

Metals.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen.,

delivery Brooklyn, N. Y.; 10,000 lbs. Venetian red, schedule 6594; delivery Philadelphia, Pa.; for copies of schedules apply to navy pay office nearest navy-yard.

Paving.—City, A. G. Ricks, Commr., New Orleans, La.—Bids until Meh. 31 to pave portions of Tchoupitoulas, 9th and 3d Sts., according to plans and specifications on file in office of City Engr.

Paving, etc.—Board of Commrs., Lafie Solomon, Secy., Helena, Ark.—Bids Apr. 9 at office of Macon & Trotter, Solomon Bldg., for improving portions of Perry and Poplar Sts. with asphaltic concrete, cement concrete and bitulithic; to include curb and gutter, storm-water drain pipe and other incidentals; L. R. Parmelee, City Engr.

Paving, etc.—Office of Ford & McCrea, 338 Gazette Bldg., Little Rock, Ark.—Bids until Apr. 3 to grade, curb and pave sidewalks with water-bound macadam, tarvia macadam or concrete; about 4500 sq. yds.; proposals must be addressed to O. W. McCaskill, Union Trust Co.

Paving.—Board of Commrs., J. W. Dashiell, Secy., Nashville, Tenn.—Bids until Apr. 9 to construct bitulithic paving under special improvement ordinances Nos. 4, 7, 19, 21, 25, 28, 29, 32, 34, 36, 38, 39 and 44; certain creosoted wood block paving, Nos. 10, 11, 14, 16, 17, 48, 49, 50, 53 and 56; certain granite block paving, Nos. 2, 6, 22, 54, 55 and 57; certain vitrified brick paving, Nos. 1, 5, 18, 26, 40, 41, 45 and 47; certain bituminous macadam paving, Nos. 9, 15, 20, 23, 37, 42 and 58; plans and specifications at office of W. W. Southgate, City Engr.

Paving.—Marion County Court, John F. Phillips, Clerks, Fairmont, W. Va.—Bids until Apr. 14 to construct about 23 mi. improved roads and streets in Fairmont Dist.; plans and specifications on file in County Clerk's office, Fairmont, and offices of Chaney & Armstrong, Fairmont, W. Va., and Washington, Pa.

Paving, etc.—Board of Awards, John Hubert, Acting Prest., Baltimore, Md.—Bids until Apr. 8 to grade, curb and pave with asphalt under contract No. 129 portions of Patterson Park Ave., Patterson Pl., Collington Ave., Darley Ave., 23d St., Starr Lane, Montebello Ave., Adams St., Bartlett Ave., Barclay St., Harwood St., 26th, 27th, 29th, 30th, 32d Sts., Abell Ave., Talbott St., Guilford Ave., 31st St., 31st St., Roland Ave., Hickory Ave., Union Ave. and 28th St.; about 60,000 sq. yds.; contract No. 130 with vitrified brick portions of Callow Ave., Reservoir St., alley between Brookfield Ave. and Lakeview Ave., alley south of Park Ter., Brookfield Ave., Chauncey Ave., Brooks Lane, Monroe St., Bentalou St., Walbrook Ave., Clifton Ave., Smallwood, Pulaski, Presbury and Pressman Sts., Harleu, Wheeler and Warwick Aves., 62,064 sq. yds. sheet asphalt and 2600 sq. yds. vitrified brick; contract No. 131, Rosedale St. from Windsor Ave. to Elgin Ave., 9000 sq. yds.; above amount is approximate; specifications obtainable at office Commr. for Opening Streets, City Hall.

Peanut Parching Machines.—E. H. Williams, Room 4, 435 Carondelet St., New Orleans, La.—Addresses of manufacturers of peanut parching machines, 100 lbs. capacity or less.

Pipe.—C. J. Morrow, Garland Lumber Co., Garland, N. C.—Prices on 45,000 ft. 1-in. drykiln pipe.

Pipe.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of pipe for 12-in. hydraulic dredge.

Pipe Fittings, Bolts, Nuts, etc.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 28 to furnish miscellaneous lot semi-finished steel nuts and bolts and brass pipe fittings, miscellaneous lot pressure reducing valves, schedule 6561; delivery Navy-yard, Puget Sound, Wash.; 500 ft. 1½-in. cotton-covered hose and 500 ft. 2½-in. fire hose, schedule 6560; delivery Navy-yard, Mare Island, Cal.; 3 periscopes, schedule 6553; delivery Navy-yard, Norfolk, Va.; for copies of schedules apply to navy pay office nearest navy-yard.

Pipe and Tubing.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 8000 lbs. brass pipe and 3000 lbs. brass tubing, schedule 6596; delivery Brooklyn, N. Y.; 20,000 lbs. condenser tubes, schedule 6585; delivery Charleston, S. C.; 300 lbs. copper tubing, schedule 6577; delivery Navy-yard, Newport, R. I.; for copies of schedules apply to navy pay office nearest navy-yard.

Pipe.—Hominy Light & Gas Co., Hominy, Okla.—Prices on 3, 4 and 6-in. pipe for gas line; also on 2-in. pipe and necessary fittings; W. S. Barwick, Engr., Cushing, Okla.

Plastering.—J. A. Jones, Charlotte, N. C.—Prices on plastering work for \$70,000 building at Spartanburg, S. C.

Printing Machinery.—See Manual Training Equipment.

Pulleys.—Perfection Laundry, R. M. Merritt, Mgr., Box 667, Pensacola, Fla.—Prices on pulleys.

Pulverizer.—Carolina Machinery Co., Glen Rock Station, Asheville, N. C.—Prices on second-hand ring roll mill; Sturtevant or Kent preferred.

Pumps.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of pumps for 12-in. hydraulic dredge.

Pumps.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 5 to furnish miscellaneous lot fire and bilge pumps, etc., schedule 6563; delivery Navy-yard, Mare Island, Cal.; for copies of schedules apply to navy pay office nearest navy-yard.

Quarrying Equipment.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Prices on quarrying and stone dressing machinery; large sized planer (prefer attachment for circular work); large saw (diamond or carborundum teeth), either circular blade or large diam., or straight cut or drag saw of Young & Farrel type; lathe for turning stone columns and pulp grinding stones; vertical boring mill (prefer turn stones to 6 ft. diam. and 4 ft. high); scabbling machine; overhead traveling crane, 40 to 60-ft. span, capacity between 15 and 30 tons; quarry bar, on which steam

drill can be mounted; emery wheel stand for sharpening tools; steam shovel (revolving type preferred); standard gauge track dipper, about 1 yd.; standard gauge and narrow gauge dump cars.

Rails.—Dallas Co., Box 478, Selma, Ala.—Prices (immediate shipment) on 30 mi. 56-lb. relaying rails, with splices, bolts and spikes.

Rails, etc.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish 3000 lbs. steel angles, 2300 lbs. splice steel bars, 40,000 lbs. 30-lb. steel rails, miscellaneous lot track spikes, etc., and 2 split switch turnouts, schedule 6572; delivery Newport, R. I.; miscellaneous lot 60-lb. steel rails, schedule 6578; delivery Philadelphia, Pa.; 29,700 lbs. 100-lb. steel rails; delivery Brooklyn, N. Y.; miscellaneous lot 30-lb. railway track and 4 turntables, schedule 6601; delivery Washington, D. C.; for copies of schedules apply to navy pay office nearest navy-yard.

Ranges.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids Apr. 21 to furnish miscellaneous lot kitchen ranges, etc., schedule 6580; delivery Iona Island, N. Y.; miscellaneous lot spare parts for ships' ranges, schedule 6593; delivery Brooklyn, N. Y.; for copies of schedules apply to navy pay office nearest navy-yard.

Refrigerating Machinery.—H. E. Cole, Supt., Municipal Water and Light Dept., Winter Park, Fla.—Prices on refrigerating machinery.

Refrigerating Machinery.—R. D. Crawford, Dothan, Ala.—Data and prices on installation of small refrigerating plant to be operated electrically.

Road Construction.—Chickasaw County Road Commrs. of Third Supervisors' Dist., R. J. West, Atty., Okla., Miss.—Bids until Apr. 10 to grade and gravel about 9½ mi. road in district; profiles and specifications at office of Mr. West.

Road Construction.—Dorchester County Commrs., I. O. Taylor, Prest., Cambridge, Md.—Bids until Feb. 31 to construct section of State-aid highway between Hurlock and Waddell's Corners, distance 2.25 mi.; plans and specifications obtainable on application to State Road Comm., 601 Garrett Bldg., Baltimore, Md., or at County Commrs.' office.

Road Construction.—Duval County Commrs., Frank Brown, Clerk, Jacksonville, Fla.—Bids until Apr. 9 to pave with concrete or vitrified brick Camp Site Rd., about 5300 ft., 15 ft. wide; plans and specifications at offices of Frank Brown, Clerk, and A. F. Harley, Engr., Jacksonville.

Road Construction.—Victoria County Commrs., Victoria, Tex.—Bids Apr. 14 to construct gravel roads in Road Dist. No. 5; plans and specifications on application; J. P. Pool, County Judge.

Road and Bridge Construction.—Calcasieu Parish Police Jury, E. C. House, Clerk, Lake Charles, La.—Bids until Apr. 27 to improve about 43 mi. highways, Nos. 3, 4 and 9, and bridges and culverts thereon; about 1100 cu. yds. of concrete and 2250 lin. ft. pile trestle; plans and specifications in office of Highway Dept. (Lately noted.)

Road Construction.—Maryland State Roads Com., O. E. Weller, Chmn., 601 Garrett Bldg., Baltimore, Md.—Bids until Apr. 14 to construct 7 sections highway, 33.28 mi., as follows: Allegany county, National pike from Green Ridge to Washington county line, 7.88 mi., resurfacing; Anne Arundel county, along road from South River to Mt. Zion, 8 mi., gravel; Baltimore county, Black Gap Rd. from Kingsville to Harford county line, 2.25 mi., macadam, concrete or bituminous concrete; Carroll county, Westminster-Manchester Rd. from Myer's entrance to Sherman's line, 4.91 mi., concrete or macadam; Garrett county, road between Hoyes and Accident, 2.75 mi., macadam or concrete; Montgomery county, road between Darnestown and Dawsonville, 3.49 mi., macadam or concrete; Washington county, National pike between Harvey and Allegany county line, 4 mi., resurfacing; plans and specifications on application and payment of \$1 for each contract.

Road Machinery.—Ware County Commissioners, Waycross, Ga.—Wheel scrapers; 8 to 12.

Sand-blast Equipment.—J. B. Debnam, Y. M. C. A., Dayton, O.—Names and addresses of manufacturers of sand-blast outfits for cleaning stone buildings.

Saw.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Prices on large saw (diamond or carbonadium

teeth), either circular blade of large diam., or straight cut or drag saw of Young & Farrel type. (See Quarrying Machinery.)

Sawmill, etc.—Rosslyn Lumber Co., J. T. Heare, Mgr., Mount Airy, N. C.—Prices on second-hand band sawmill complete; to cut not less than 40,000 ft. daily; also steam skidder and loader for 36-in. gauge road; full particulars and price in first letter. (Second-hand omitted in recent item.)

Sawmill Equipment.—C. J. Morrow, Garland Lumber Co., Garland, N. C.—Prices on planer, rip saw and 80 H. P. engine.

Screens.—Alabama Lime & Stone Co., H. M. Smith, Secy., Rome, Ga.—Prices on screens for plant at Paint Rock, Ala.

Seating.—College Hill M. E. Church South, Rev. Jesse Mitchell, pastor, R. F. D. No. 4, Texarkana, Ark.—Prices on church seats.

Sewers.—Board of Awards, John Hubert, Acting Prest., Baltimore, Md.—Bids until Apr. 8 to build storm water drains, contract No. 28; about 1040 lin. ft. 54-in. masonry drains, 1970 ft. 30-in. masonry drains, 10,750 lin. ft. 15-in. to 24-in. masonry drains, 3150 lin. ft. 12-in. to 15-in. inlet connections, 75 manholes and 144 inlets; plans and specifications in office of Sewerage Com., Chas. England, Chmn., 904 American Bldg., Baltimore.

Sewage Disposal Plant.—Board of Awards, John Hubert, Acting Prest., Baltimore, Md.—Bids until Apr. 15 at office Richard Gwinn, City Register, to build Imhoff and sludge tanks and sludge beds at sewage disposal works, sanitary contract No. 133; approximate quantities: 22,700 cu. yds. excavation, 12,500 cu. yds. embankment, 270 cu. yds. sand for sludge beds, 7800 cu. yds. gravel for sludge beds, 2700 lin. ft. 12-in. vitrified pipe, 8770 lin. ft. unglazed drain tile, 5900 cu. yds. concrete masonry, 200,000 lbs. reinforcing steel, 60 tons cast-iron pipe, 90,000 lbs. structural steel, 190 cu. yds. rubble masonry; plans and specifications at office Sewerage Com., Chas. England, Chmn., 904 American Bldg.

Sewer Construction.—See Water-works, etc.

Sewer Construction.—City of Houston, Tex., E. E. Sands, City Engr.—Bids until Apr. 6 to construct storm sewer on Hadley and Gray Aves. from Smith to Travis St., cost \$8200; Elgin Ave. from Austin to Chenevert St., cost \$14,300; Louisiana St. from Lamar to Bell Ave., cost \$6500; Crawford St. from Capitol to Walker St., cost \$2200; Elgin Ave., Louisiana to San Jacinto St., etc., cost \$14,300; Tuam Ave. from Austin to Chenevert St., cost \$7000; Anita Ave. from Milam to Fannin St., cost \$8900; specifications and information obtainable from City Engr.

Shafting.—J. M. Lassiter, P. O. Box 616, St. Petersburg, Fla.—Catalogues from manufacturers of shafting for 12-in. hydraulic dredge.

Shell.—Hillsborough County Commrs., W. P. Culbreath, Clerk, Tampa, Fla.—Bids until Apr. 7 to furnish 2000 cu. yds. shell (bay or Manatee River); to be delivered at some point on Six-Mile Creek.

Slate.—Baker & Holmes Co., Jacksonville, Fla.—Red and green Bangor slate; delivery at nearest point on Atlantic Coast Line Ry.; Virginia product probably preferred.

Sliding Doors.—College Hill M. E. Church South, Rev. Jesse Mitchell, pastor, R. F. D. No. 4, Texarkana, Ark.—Prices on sliding and folding doors for \$5000 church building.

Steam Shovel.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Prices on steam shovel (revolving type), standard gauge track dipper, about 1 yd. (See Quarrying Equipment.)

Steam Skidder and Loader.—Rosslyn Lumber Co., J. T. Heare, Mgr., Mount Airy, N. C.—Prices on second-hand steam skidder and loader for 36-in. gauge road. (See Sawmill, etc.)

Steel.—See Hoists, etc.

Steel Cage.—Ware County Commrs., Waycross, Ga.—Portable steel cage with capacity 18 men.

Stone-cleaning Contractors.—J. B. Debnam, Y. M. C. A., Dayton, O.—Names and addresses of contractors with sand-blast outfits for cleaning stone buildings.

Structural Steel.—Navy Dept., Bureau of Yards and Docks, W. M. Smith, Acting Chief of Bureau, Washington, D. C.—Bids until May 9 for structural steel for marine railway for Naval Station, Pearl Harbor,

Hawaii; specifications No. 2356. (Date postponed from Apr. 4.)

Teak Logs.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids until July 14, Washington, or at U. S. Navy Pay Office, Manila, P. I., until July 13, to furnish at Navy-yards, New York, Norfolk or Manila Bay, P. I., or at port of Rangoon, Burmah, about 1,500,000 ft. teak logs and decking; schedule 6571; schedules furnished on application to navy pay offices, New York, San Francisco and Manila.

Tile.—J. M. Echols, 1517 Calvert St., Norfolk, Va.—Prices on pipe or tile used by farmers in draining low lands; state freight rates in car lots to Norfolk.

Tin Ingots and Plate.—A. Fabregat, Sombreners 12, Barcelona, Spain.—Correspondence (view to agency) with manufacturers of tin ingots and plate.

Towing Machine.—Navy Dept., Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-Gen., Washington, D. C.—Bids May 5 to furnish 2 steam automatic towing machines, schedule 6582; delivery Navy-yard, Mare Island, Cal.; for copies of schedules apply to navy pay office nearest navy-yard.

Trucks.—C. J. Morrow, Garland Lumber Co., Garland, N. C.—Prices on 120 6-ft. dry-kiln trucks.

Tabing.—See Hoists, etc.

Water-works.—J. W. Skinner, Mayor, and Commrs., Hammond, La.—Bids until Apr. 27 to construct certain water-works improvements and for necessary building and material and machinery; latter includes 2 oil engines, 80 H. P. each, and two 750-gal. pumps to be direct connected, with necessary apparatus, hydrants, valves, cast-iron pipe and labor; plans and specifications in office of Commrs. at Hammond, and at office of Xavier A. Kramer, Consult. Engr., Magnolia, Miss.

Water Meters.—Town Trustees, J. B. Synder, Chmn., Stigler, Okla.—Bids until Apr. 14 to furnish 200 ½-in. water meters; proposal blanks and specifications obtainable from Engrs., Winters & Dove, Fort Smith, Ark.

Water-works, etc.—Town Trustees, J. B. Synder, Chmn., Stigler, Okla.—Bids until Apr. 14 on water-works and sewer extensions; principal items are furnishing materials and building sedimentation basin with dosing apparatus at pumping station, furnishing and laying 3000 ft. 12-in. vitrified sewer pipe, 95 ft. 12-in. cast-iron pipe, furnishing materials and building 8 manholes, sewage settling tank and sludge bed; plans and specifications on file with Town Clerk and Engrs., Winters & Dove, Fort Smith, Ark., after Apr. 6; extra copies of plans and specifications may be obtained by remitting \$3 to engineers.

Webbing.—"Webbing," care Manufacturers Record.—To correspond with manufacturers of webbing, 1-32 to ¾ in. thickness; may buy plant partially equipped for such manufacture.

Well-drilling Machinery, etc.—Murichson Oil Co., Box 428, Tablequah, Okla.—Prices on drilling machinery, etc.

Wire Fencing.—Mills Farms Co., F. B. Mills, Gen. Mgr., Rose Hill, N. Y.—Large quantity wire fencing; carloads; delivery Bond, Miss.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Louisiana's \$11,000,000 Loan.

A report from Baton Rouge, La., says that the first shipment of the printed bonds of the new Louisiana refunding loan, which was sold in December to a New Orleans and New York syndicate, has been received from the engravers in New York, and it has been sent to the Hibernia Bank & Trust Co. of New Orleans, a member of the syndicate, and they will be given to holders of the certificates which were issued, pending the preparation of the bonds. They will first be signed at the

bank by the several state officials necessary. It will then take a week to sign the entire issue of about \$11,000,000, which is in denominations of \$1000 each, bearing 4 per cent. interest and maturing in 50 years. The other members of the purchasing syndicate are Potter, Choate & Prentice, and Harris, Forbes & Co., both of New York, and the Whitney-Central Bank of New Orleans.

Large Deal in Bank Stock.

Asa G. Candler has bought a large block of stock (2850 shares) in the Atlanta National Bank of Atlanta, Ga., 2500 shares being purchased from Alfred R. Swann of Tennessee and 350 from Edward H. Inman. It is stated that the control of the bank is not affected as a result. Charles E. Currier is president; Frank E. Block and J. S. Floyd, vice-presidents, and Geo. R. Donovan, cashier. Capital is \$1,000,000; surplus, \$1,000,000; undivided profits, \$300,000; deposits, \$6,500,000; loans, \$7,000,000. Mr. Candler is president of the Central Bank & Trust Corporation of Atlanta, which has a capital of \$1,000,000, undivided profits of \$580,000 deposits \$3,800,000, and loans \$4,600,000. Mr. Candler is also president of the Coca-Cola Company. It is reported from Atlanta that the price paid for the stock was \$855,000, or \$300 per share.

FINANCIAL CORPORATIONS

Ala., Roy.—People's Bank of Roy has made application to organize; authorized capital \$25,000, with \$15,000 paid in.

Ark., Lead Hill.—Bank of Lead Hill, capital \$10,000 is organized with T. E. Hall, Prest.; T. R. Cantrell, V.-P.; L. B. Bell, Cash.

Ark., Ravenden Springs.—Lone Rock Bank is reported organized with Elmer Davies, Cash.

D. C., Washington.—Exchange Bank of Washington, capital \$50,000, surplus \$10,000, 20th St. and Pennsylvania Ave. N. W., has begun business; R. L. Montague, Prest.; Dr. M. F. Finley, 1st V.-P.; Victor J. Evans, 2d V.-P.; John B. Flynn, Cash.; Dr. Elmer Sothoron, Treas. It succeeds the Munsey Trust Co.'s branch at that location.

Fla., Pensacola.—National Bank of Commerce, capital \$300,000, recently approved, expects to begin business between Apr. 15 and 20. R. W. Goodhart will be Prest.

Fla., Punta Gorda.—Conversion of the Merchants' Bank of Punta Gorda into the First National Bank is approved; capital \$25,000.

Ga., Metcalf.—New bank is organized with E. M. Smith, Prest.; W. Horne, V.-P., and W. O. Carter, Cash.

Ga., Rhine.—Citizens' Bank, chartered with \$25,000 capital, is soon to begin business; directors, T. A. McMillan, Prest.; Archie Coffee, V.-P.; W. A. Wilcox, A. J. Yancey, J. A. Ryals, Dan C. Cravey, B. M. Burch, N. Sheffield, G. M. Burnham, O. J. Stuckey and W. B. Bryan. O. J. May will be Cash.

Ky., Paducah.—Postmaster Frank M. Fisher announces that he will organize a fire insurance company with capital and surplus of \$1,000,000. Home office will be in Paducah.

La., St. Francisville.—Farmers and Merchants' Bank, capital \$15,000, is being organized with L. W. Rogers, Prest.; Cheston Folkes, V.-P.; H. T. Pye, Cash.; C. M. Downs, G. L. Plettinge, W. R. Daniel and Max Dampf, directors. Offices will be in building formerly used by Felician Bank & Trust Co.

Miss., Jackson.—Conversion of the Jackson Bank into the Jackson National Bank is approved; capital \$100,000.

Miss., Aberdeen.—Bank of Aberdeen has made application to convert into the Aberdeen National Bank; capital \$50,000.

Miss., Meridian.—Bank of Commerce inceptd.; capital \$50,000. W. G. Simpson, Prest.; J. E. Hasselle, Cash.; Lewis E. Crook, Aud. Business began Apr. 1.

Mo., Brashear.—Farmers and Merchants' Bank, capital \$20,000, is organized with Francis Henry, Cash.

N. C., Charlotte.—Furniture Dealers' Mutual Insurance Co. is chartered; W. T. McCoy, Charlotte, Pres.; W. M. Walters, Florence, S. C., V.-P.; James T. Porter, Charlotte, Treas.; J. A. Gilmore, Charlotteville, Va., Secy. and Mgr.

N. C., Hillsboro.—Commercial Bldg. and Loan Assn. is commissioned; capital \$1,000,000. Petitioners: R. A. Bradham, P. M. Brown and R. D. Lee.

N. C., Murphy.—Bank of Cherokee inceptd.; capital \$15,000; Organizers: C. M. Wofford, S. W. Lovingood, B. P. Grant, C. B. Hill and G. W. Candler. Business is to begin about Apr. 15.

N. C., Norwood.—Pee Dee Bank, capital \$10,000, is chartered; organizers, W. T. Barrington and others.

N. C., Selma.—Conversion of the Bank of Selma into the First National Bank of Selma is approved; capital \$30,000.

Okl., Durant.—State National Bank of Durant, to succeed the Guarantee State Bank, has made application to organize; capital \$50,000. Organizers: Green Thompson, E. C. Million, S. G. Bryan, A. U. Thomas and G. H. Harris.

Okl., Antlers.—Farmers' Exchange Bank, capital \$15,000, is inceptd. by C. E. Archer, J. E. Kennard, Antlers; John G. Long, Oklahoma City.

Okl., Hulbert.—First State Bank has made application to convert into the First National Bank of Hulbert; capital \$25,000.

Okl., Drumright.—Drumright State Bank, capital \$30,000, is chartered. A. Drumright, Pres.; J. G. Bennett, V.-P., both of Drumright; Kelly Roach of Oklahoma City, 2d V.-P.; J. A. Ames of Drumright, Cash. Business began Mch. 25.

S. C., Columbia.—Guaranty Building & Loan Co. of Columbia, capital \$200,000, has opened books for subscription; B. F. Taylor, Pres.; William M. Gibbs, V.-P.; D. G. Ellison, Secy. and Treas.; Sloan & Sloan, Attys.

S. C., Conway.—People's National Bank, capital \$25,000, which has applied for charter, expects to begin business about May 1. The following officers and directors have been proposed: J. A. McDermott, Pres.; D. A. Spivey, Cash.; G. B. Jenkins, V.-P.; J. C. Spivey and A. T. Collins.

S. C., Florence.—Bank of Pamlico, capital \$25,000, is inceptd. by G. J. Steele and A. A. Munn, Orum, S. C.; J. O. Finkler, Hyman, S. C.; H. F. Dargan and B. D. Dargan, Effingham, S. C.; Sanborn Chase and J. W. McCown, Florence. Business is to begin about June 1.

S. C., Mayesville.—Local branch of Farmers' Bank & Trust Co. is reorganized and will hereafter be conducted as an independent home bank known as Citizens' Bank of Mayesville, with \$15,000 capital.

S. C., Sumter.—Commercial Building and Loan Assn. is commissioned; capital \$100,000, with privilege of increasing to \$1,000,000.

Tenn., Maryville.—First National Bank of Maryville will begin business about May 1 with \$50,000 capital and \$10,000 surplus; directors, T. N. Brown, Pres.; J. H. Staley, V.-P.; E. A. Ames, Cash.; Clay Cunningham, O. C. Cusick, D. R. Gothard, J. H. Mitchell, S. L. Proffitt, J. H. Webb, E. A. Walker and W. C. Wrinkle.

Tex., Austin.—Delta Chi Building and Loan Assn. is chartered; capital \$25,000; incorporators, B. L. Parton, W. H. Lipscomb, J. G. Randle.

Tex., Beaumont.—Guaranty Bank & Trust Co., capital \$100,000, has begun business with offices in the S. Blanchette Bldg.; directors, Joe E. Carroll, Pres.; T. H. Nees, Cash.; C. R. Bone, M. Guiterman, Dr. J. D. Butler and George W. Brown, V.-Ps.; J. K. Grist, R. E. Hardwicke, M. T. Walker, Roy Hankamer, W. L. SoRelle, C. B. Shepard, Dr. J. W. Garth, E. L. Boykin, C. S. Gordon, F. E. Carroll, Guy W. Junker, J. C. Clemmons, Benton McMillan, Alex. Szafir, F. R. Halley and H. F. Triplett.

Tex., Harwood.—First State Bank of Harwood is authorized to do business; capital \$10,000.

Tex., Matador.—First National Bank of Matador has made application to organize; capital \$30,000. Organizers: C. G. Wille, E. A. Day, J. N. McCaghen, B. F. Moore and M. L. Paton.

Tex., McKinney.—McKinney Building and Loan Assn., capital \$250,000, is chartered by George Wilcox, R. C. Merritt, H. A. Abernathy and J. W. Ashley.

Tex., Odem.—Odem State Bank chartered;

capital \$25,000. D. Odem, Pres.; J. D. Wilham, V.-P.; Grant Frederick, Cash. Business will begin Apr. 10.

Tex., San Saba.—San Saba Building and Loan Assn. is chartered; capital \$30,000.

Tex., Wichita Falls.—Wichita Falls Building and Loan Assn., authorized capital \$500,000, has organized with J. A. Kemp, Pres.; J. D. Avis, J. W. Stringer, M. J. Gardner, V.-Ps.; M. D. Walker, Secy.; J. M. Bland, Treas., and R. E. Huff, Atty.

Va., Mendota.—Bank of Mendota inceptd.; capital \$10,000. J. S. Darton, Pres., Hilton, Va. Directors: V. C. Barker, Secy.; A. B. English, 1st V.-P.; J. E. Ellington, 2d V.-P. Business is to begin about Apr. 15 or May 1.

Va., New Market.—First National Bank of New Market has made application to organize; capital \$25,000.

Va., Norfolk.—Greenway Court Investment Corporation, capital \$5000 to \$50,000, is chartered; J. R. Dole, Pres.; T. W. Shelton, Secy.

NEW SECURITIES

Ala., Brewton.—Report that Flomaton School Dist., Escambia county, had sold school bonds is denied. Address S. H. Newton.

Ala., Flomaton.—\$10,000 of school district bonds were recently sold. Address Dist. Commrs.

Ark., Marion.—Bids will be opened on Apr. 10 for \$1,165,000 St. Francis Levee Dist. bonds. O. N. Killough, Pres., St. Francis Levee Board.

Ark., Van Buren.—\$9000 6 per cent. 15-year storm sewer and drainage district bonds were sold to Gunter & Sawyer, Little Rock, Ark., at \$88.20; denomination \$500; dated May 1, 1914. Address J. J. Izard, Chrmn., Board of Improvement Dist. J. D. Hawkins is Mayor.

Fla., Daytona.—\$175,000 sewerage and drainage bonds are voted. Henry Titus is Mayor.

Fla., DeLand.—Steps are being taken to call an election to vote on \$200,000 of bonds as follows: For retiring outstanding bonds that mature July 1, 1914, \$25,000; improvements to water-works, \$30,000; storm-water drainage, \$45,000; sanitary sewer mains, \$5,000; street improvements, \$80,000; improvements to municipal property, \$15,000. Address The Mayor.

Fla., Fort Myers.—Bids received Apr. 3 for \$30,000 5 per cent. 20-year street-improvement bonds. Address City Council.

Fla., Hillsboro.—A proposition to hold an election on \$6000 of crematory bonds is before the City Council. Address The Mayor.

Fla., Manatee.—A vote on \$60,000 of paving, \$30,000 of water and \$30,000 of sewer bonds will, it is reported, soon be held. Address The Mayor.

Fla., Ojus.—Election will probably be held to vote on \$10,000 school bonds. Address Board of Education.

Fla., Palmetto.—\$85,000 6 per cent. 30-year improvement bonds have been sold to John Nuveen & Co., Chicago, for \$85,500 and interest.

Fla., Port Tampa.—\$17,000 of paving and storm-sewer bonds have been voted. Address The Mayor.

Ga., Americus.—Election will be held Apr. 29 to vote on \$10,000 public-improvement bonds. Address The Mayor.

Ga., Atlanta.—Plans to issue \$750,000 of bonds for improvement of Grady Hospital are being made by Council's Plaza Com. and Hospital Ways and Means Com. Election will be held May 5. James G. Woodward is Mayor.

Ga., Roswell.—Election will be held Apr. 11 to vote on \$9000 school bonds; interest not to exceed 6 per cent. Address School Commissioners.

Ga., Monroe.—The \$19,000 school bonds to be voted on Apr. 2 are 30-year 5 per cents. J. D. Kent is Clerk.

Ga., Moultrie.—\$60,000 of 5 per cent. 30-year city bonds for paving sewers and schools are reported sold to J. H. Hillsman & Co. of Atlanta at 102 and interest.

Ga., Pelham.—Election will be held Apr. 15 to vote on \$16,000 school building, \$4000 paving, \$5000 jail and fire department, \$4000 water and light system extension and \$1000

sewerage system extension bonds. Address The Mayor.

Ga., Shellman.—\$15,000 6 per cent. sanitary sewerage system bonds were purchased Mch. 27 by J. H. Hillsman & Co., Atlanta, at \$15,692.50 and accrued interest. Denomination \$500 and \$1000. Dated Dec. 1, 1913. Maturity \$500, 1920 to 1923, inclusive; \$1000, 1930 to 1932, inclusive. C. P. Payne, City Clerk.

Ga., Trenton.—\$80,000 5 per cent. 20-year Dade county road bonds are voted; denomination \$1000. Dated Sept. 1, 1914. C. S. Turner, Ordinary.

Ky., Cynthiana.—City Council is expected to pass an ordinance Apr. 14 to call election on \$15,000 school-building bonds. Address School Board.

Ky., Elizabethtown.—\$25,000 of school bonds are voted. Address Dist. School Trustees.

Ky., Ludlow.—Board of Education is reported to have asked the Council to call an election on \$20,000 of high-school building bonds. Address Secy. School Board.

Ky., Pikeville.—\$50,000 of bonds for Pike county and city high school at Pikeville are voted. H. W. Stallard is County Judge.

Ky., Tompkinsville.—\$7000 school district building and improvement bonds are voted. Address School Commrs.

Ky., Whitesburg.—It is contemplated to hold an election in Letcher county in May on road-building bonds. Address County Commissioners.

La., Abbeville.—Vermillion parish proposes to issue \$72,500 of road bonds. Address Police Jury.

La., Alexandria.—Bids will be received until noon Apr. 6 for \$125,000 of bonds of Alexandria School Dist. No. 1, Rapides parish. Address D. B. Shovalter, Supt. and Treas., Parish School Board.

La., Kinder.—Kinder Drainage Dist. No. 2 has voted a tax to pay for an issue of \$30,000 in bonds. Address Dist. Commrs.

La., Mansfield.—\$67,500 5 per cent. 40-year water and sewer bonds have been purchased at \$50 premium by H. C. Speer & Sons Co., Chicago.

La., Ponchatoula.—Bids will be received until noon Apr. 13 by H. P. Mitchell, Pres. Police Jury, for \$75,000 5 per cent. Seventh Ward Road Dist. No. 2 bonds; denomination \$1000; dated June 1, 1914; maturity serially 1919 to 1923, inclusive.

Md., Annapolis.—Bill authorizing bond issue for sewage-disposal plant has been introduced in Senate.

Md., Annapolis.—\$10,000 5 per cent. 1-10-year serial Anne Arundel county bridge bonds were purchased at 103.063 by Nelson, Cook & Co., Baltimore.

Md., Annapolis.—Several bills to authorize loans in various towns and counties have been killed in the Legislature, thus: \$15,000 Montgomery county road bonds, \$30,000 Montgomery county school bonds, \$50,000 Kensington water and sewer bonds, \$45,000 Hurlocks municipal improvement bonds, \$60,000 Queen Anne county funding bonds, \$10,000 Centerville street-improvement bonds, \$4500 Centreville electric-plant bonds, \$3,000,000 Baltimore sewer-extension bonds.

Md., Baltimore.—A bill has passed the Legislature authorizing Baltimore to issue \$750,000 of bonds to build hospital for contagious diseases. Address The Mayor.

Md., Cumberland.—Bill authorizing \$30,000 of bonds to redeem former bond issue failed to pass Senate.

Md., Hurlock.—Bill authorizing bond issue for sewerage system is before State Senate.

Md., Prince Frederick.—\$25,000 bond issue for Calvert county courthouse killed by Senate.

Md., Rockville.—Senate failed to pass bill providing for issue of \$50,000 water and sewerage bonds.

Md., Salisbury.—Bill for \$30,000 bonds for street paving defeated in the Legislature.

Miss., Decatur.—Newton county has voted road bonds. Address County Commrs.

Miss., Greenville.—\$300,000 6 per cent. bonds of Bogue Phalia Drainage Dist., Washington county, have been sold to the National City Bank of Chicago at par and accrued interest. Bonds are part of an authorized issue of \$1,000,000.

Miss., Jackson.—Yazoo-Mississippi Delta Board of Levee Commrs. is authorized to issue \$1,000,000 of levee bonds.

Miss., Lexington.—Bids are to be asked for \$75,000 6 per cent. 25-year bonds for purpose of paying off floating debt of county. Address Board of Suprvs. Holmes County, P. H. Murphy, Clerk.

Miss., Meridian.—Election will be held Apr. 21 to vote on \$60,000 school and \$14,000 refunding bonds. The school bonds are 5 per cent. extension and improvement; denomination \$1000. An election may also be held on a proposed issue of \$50,000 of pleasure resort bonds. J. W. Parker is Mayor.

Mo., Auxvasse.—Bids received until noon Mch. 20 by R. E. French, Secy., for \$16,000 5 per cent. site-purchase and building bonds. Auxvasse Consolidated School Dist. No. 1, Callaway county; denomination \$500; dated May 1, 1914; maturity \$1000 yearly from 1919 to 1934, inclusive, subject to call after 15 years.

Mo., Boonville.—Bids will be received until 4 P. M. Apr. 15 by Wm. Mittelbach, Secy. Board of Education, for \$65,000 10-20-year school district bonds; interest 4, 4½ and 5 per cent.; denomination \$500; dated June 1, 1914.

Mo., California.—Bids will be received until 2.30 P. M. Apr. 15 for \$30,000 5 per cent. 10-20-year bonds School Dist. No. 43, Moniteau county; denomination \$500; dated Apr. 1, 1914; Lashley M. Gray, Secy. School Board.

Mo., Clayton.—St. Louis county is, it is reported, contemplating issuing \$3,000,000 road bonds. Address County Commrs.

Mo., Harrisonville.—\$20,000 5 per cent. school bonds have been voted. Sutherland Bond Co., Kansas City, will take the bonds at par and premium of \$35. Address School Board.

Mo., Mountain Grove.—\$15,000 high-school improvement bonds have been voted. Address School Commrs.

Mo., Ozark.—The \$65,000 courthouse and \$10,000 almshouse bonds of Christian county, for which bids are being received until noon Apr. 8, are 10-20-year 5 per cents., interest not to exceed 5 per cent.; denomination \$500; dated June 1, 1914; John Glenn, Jr., is County Treas.

Mo., St. Louis.—Election will be held Nov. 6 to vote on \$2,750,000 municipal bridge bonds. Address The Mayor.

N. C., Durham.—\$500,000 for water-works to be voted on Apr. 21 are 5-30-year bonds. Interest not to exceed 5 per cent. Denomination not less than \$25 or more than \$1000. W. J. Brogden, Mayor. Geo. W. Woodward, Clerk.

N. C., Raleigh.—The \$100,000 street, sewer and fire-station bonds to be voted on Apr. 15 are 30-year 5 per cents. Jas. I. Johnson is Mayor.

N. C., Tryon.—Election will be held May 5 to vote on 20-year water bonds, dated July 1, 1914. Recent report gave the amount as \$20,000. Address The Mayor.

Okl., Bartlesville.—Election will be held Apr. 18 to vote on \$60,000 Dewey township and \$60,000 Jackson township, Washington county, bonds. Address County Commrs.

Okl., McAlester.—\$21,275 Pittsburg county funding bonds have been purchased by R. J. Edwards of Oklahoma City.

Okl., Okmulgee.—\$110,000 Okmulgee county courthouse bonds defeated.

Okl., Sapulpa.—\$145,000 20-year 5 per cent. courthouse and jail bonds were voted Mch. 24. \$1.01 is offered for the bonds. J. H. N. Cobb is Secy. Sapulpa Commercial Club.

Pa., Conneltsville.—City is preparing to issue \$100,000 or more of bonds for funding and improvement purposes. Address John L. Gans, Supt. of Accts. and Finance.

S. C., Barnwell.—\$25,000 graded school district bonds are voted. Address Board of School Trustees.

S. C., Gaffney.—\$52,000 4½ per cent. 20-year Cherokee county bonds, issued to pay indebtedness, were purchased by Security Trust Co., Spartanburg, at par with accrued interest plus 27.50.

S. C., Mt. Pleasant.—An election is contemplated for June 9 on \$18,000 of 6 per cent. 20-40-year optional water-works bonds. Address The Mayor.

S. C., Johnston.—Bids will be received until noon Apr. 23 for \$25,000 5 per cent. 20-

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year School Dist. No. 11, Edgefield county, school bonds. Dated July 1, 1914. Denominations \$500 and \$1000. Address S. J. Watson, Chrmn., Board of Trustees.

S. C., Johnston.—Election will probably be held to vote on bonds for water-works. Address The Mayor.

Tenn., Athens.—Election to vote on \$30,000 5 per cent. 30-year funding and improvement bonds will be held Apr. 7. John W. Bayless is Mayor.

Tenn., Ducktown.—\$25,000 5 per cent. high-school bonds have been purchased by Ulen & Co., Chicago, at 101.60.

Tenn., Memphis.—\$250,000 of 4½ per cent. water main extension bonds, according to a report, may be issued. Address The Mayor.

Tenn., Pulaski.—\$12,500 school-building bonds voted Mch. 21 are 5 per cents. Dated July 1, 1914. Maturity \$50, 5 yrs.; \$500 each year thereafter. Denomination \$500. Address Ben Childers, City Atty.

Tex., Austin.—Attorney-General has approved following securities: \$125,000 hospital, \$75,000 courthouse repair and \$50,000 poorhouse bonds, Bexar county; \$250,000 5 per cent. Dist. No. 1, Hill county, road bonds; \$500 5 per cent. 10-20-year bonds Edwards county common school Dist. No. 12; \$75,000 5 per cent. 20-40-year school; \$75,000 5 per cent. 20-40-year street; \$80,000 5 per cent. 10-40-year road bonds, McKinney; \$25,000 5 per cent. 10-40-year bonds Cameron county road Dist. No. 2.

Tex., Bastrop.—\$20,000 McDade Dist., Bastrop county, road bonds defeated.

Tex., Belton.—Election March 31 was called on \$50,000 high-school construction, \$10,000 school improvement and \$30,000 bridge bonds. Address The Mayor.

Tex., Bishop.—\$75,000 school-building bonds were sold Jan. 19 to First State Bank, Bishop, then to Cutter, May & Co., Chicago.

Tex., Bonham.—\$300,000 road bonds have been defeated.

Tex., Buckner.—\$2000 5 per cent. 40-year independent school district bonds were purchased by State Board of Education.

Tex., Cameron.—\$65,000 of bonds for Road Dist. No. 7 of Millam county may be voted on soon. Address County Commissioners.

Tex., Clifton.—\$25,000 of high-school bonds have been declared valid by the higher courts. Address School Trustees.

Miss., Collins.—Bids will be received until noon Apr. 6 by R. Norwood, Chancery Clerk, for \$15,000 Covington county road bonds.

Tex., Corpus Christi.—The \$165,000 Nueces county causeway bonds recently voted are 10-40-year 5 per cents. Address County Commrs.

Tex., Cooper.—\$5000 of school bonds are voted. Address Board of Education.

Tex., Dallas.—Bids will be received until 11 A. M. Apr. 25 for \$125,000 5 per cent. 10-40-year Dallas county viaduct and bridge bonds. Address County Commrs.

Tex., Denton.—Election will be held Apr. 25 to vote on \$300,000 Denton county highway bonds. Address County Commrs.

Tex., El Paso.—\$34,250 of East El Paso improvement bonds are reported voted. Address The Mayor.

Tex., Galveston.—Bids received until 11 A. M. Mch. 30 for \$40,000 seawall and break-water bonds. Address John M. Murch, County Auditor.

Tex., Greenville.—An election is reported called Apr. 11 on \$200,000 of road bonds of Precinct No. 4 (Commerce), Hunt county. Address County Commissioners.

Tex., Gonzales.—Mch. 28 Gonzales Independent School Dist. will vote on bonds. Address School Commrs.

Mo., Hale.—Hale School Dist. is considering issuing \$10,000 high-school bonds. Address School Commrs.

Tex., Hallsville.—State Board of Education has purchased \$8000 of school bonds at par with accrued interest.

Tex., Hillsboro.—\$250,000 of 5 per cent. bonds of Road Dist. No. 1, Hill county, have been approved by the Atty.-Gen.

Tex., Hitchcock.—\$10,000 of 5 per cent. 20-40-year optional school-building bonds, denomination \$500, are being offered. Address F. E. Chenoweth, Secy. School Board.

Tex., Houston.—The recent report that Houston had sold \$500,000 of 5 per cent. water-works bonds was in error; no such loan was offered; it should have read Beaumont, but was already noted.

Tex., Jacksonville.—\$21,000 5 per cent. 9-39-year water and sewer bonds have been purchased by Spalding & Close, New York.

Tex., Munday.—\$10,000 street-improvement bonds have been voted. Address The Mayor.

Tex., Nacona.—\$3500 5 per cent. 20-40-year water-works extension bonds voted Nov. 4, 1913, are soon to be offered. J. L. Biter, Mayor.

Tex., Rockwall.—Election is soon to be held, it is reported, to vote on \$200,000 Rockwall Commrs.' Precinct road bonds. Address Commrs. Rockwall County.

Tex., San Angelo.—\$80,000 5 per cent. 40-year high-school bonds have been voted. Address City Council.

Tex., San Antonio.—\$25,000 of school-building bonds are reported voted by Los Angeles Dist. No. 9 of Bexar county. Address County Commissioners.

Tex., Sweetwater.—\$220,000 5½ per cent. 20-40-year water-works bonds were sold Mch. 23 to Commercial Trust Co., Kansas City, at par and \$2500 and lithographing; denomination \$1000; dated Apr. 1, 1914. Geo. Wilson, Mayor.

Tex., Thorndale.—\$100,000 5½ per cent. 40-year road bonds voted Feb. 25 are to be sold now. Denomination to suit purchaser, amount not to exceed \$1000. Address T. M. Williams.

Tex., Victoria.—\$125,000 of 5 per cent. 40-year optional bonds of Road Dist. No. 5, Victoria county, are offered for sale; denomination \$1000. Bids will be opened Apr. 14 at 10 A. M. J. P. Pool is County Judge.

Tex., Yoakum.—Bids will be received until 4 P. M. Apr. 7 for \$40,000 of 5 per cent. street-improvement bonds. Address J. M. Haller, Mayor. Further particulars will be found in the advertising columns.

Va., Ashland.—Bids received until noon Apr. 15 by W. L. Foy, Treas., for \$40,000 5 per cent. 10-50-year water-works and sewerage bonds; denomination \$1500; dated Apr. 1, 1914; S. J. Doswell, Chrmn. Committee on Finance.

Va., Ballston.—Concerning the contemplated issue of water-works bonds, it is stated that the proposition is wholly tentative at present. It is doubtful whether the bonds would be voted.

Va., Blacksburg.—\$15,000 school district bonds are voted. Address Commrs. Montgomery county.

Va., Emporia.—The \$40,000 Greenville county refunding railroad bonds for which bids are being received until noon Apr. 22 are 10-30-year 5 per cents. W. R. Cato, Agt., North Emporia, Va.

Va., Marion.—Bids will be received until noon Apr. 29 by Geo. P. Cook, Atty., Board of Supvrs., Smyth county, for \$185,000 30-year road bonds.

Va., Stuart.—\$10,000 of 5 per cent. 30-year bonds have been voted, \$6000 for water-works and \$4000 for sewers. F. P. Burton is Mayor.

W. Va., Logan.—Election will be held May 2 to vote on \$75,000 5 per cent. 10-30-year magisterial district school bonds. Denomination \$1000. Dated May 2, 1914. Of the \$75,000, but \$50,000 will be offered. Chas. Avis, Secy. Board of Education, Logan Dist.

W. Va., Parkersburg.—\$70,000 5 per cent. 20-year Wood county road-improvement bonds have been purchased by Breed, Elliott & Harrison of Cincinnati at \$70,371 and accrued interest. Burdette Woodyard is Pres. County Court.

Sugar a Century Ago.

Editor *Manufacturers Record*:

A West Indian sugar circular is quoting from a booklet on conditions of the English sugar plantation in 1806. This booklet was published by Sir William Young of the Island of Jamaica in 1807. The exports of open kettle brown sugar from the British West Indies to England from the crop of 1806 were 146,129 tons; from other sources, 6218 tons. England, after refining, exported to Ireland, America and other countries 55,134 tons, leaving for England's home consumption 103,808 tons. Based upon England's population, the consumption per capita in 1806 was 21 pounds. The price of the 1806 crop was 40 per cent. cheaper than the crop of 1706.

The average price, however, of the 1806 crop (in American gold) was \$15.30 per 100 pounds f. o. b. ship. The price of white loaf sugar from 1796 to 1806 held its own at 32 to 38 cents per pound. A hundred years ago the motive power for grinding cane in all tropical countries was windmills. The two rollers that crushed the cane stock were made of wood. The

juice was boiled in open kettles like maple sugar and syrup. The total cost of a West India "sugar-house" 100 years ago was about \$1000. The average price of slaves imported from Africa was \$250.

There are very few readers of the *MANUFACTURERS RECORD* that ever saw white cones of sugar, weighing 12 to 18 pounds, wrapped in blue paper from the West Indies. When a child we were told by the old black cook that loaf sugar was clarified by oxblood, and if the ox was not handy they killed a bad negro and used his blood. There was an overproduction of sugar 100 years ago, and this fact was the primary cause of abandoning the slave trade. The per capita consumption of sugar in England in 1912 was 81 pounds; in the United States 79 pounds. The civilization of nations can be estimated by sugar consumption. The cost of a modern sugar-house complete in 1914 ranges from \$400 to \$700. Cuba is making sugar crops of 2,000,000 tons and selling at 2 cents f. o. b. ship. The science of manufacturing has outdistanced the science of agriculture; hence we are "out of balance" and the cry is "the high cost of living."

A. E. KENNEDY

Monroe, La.

Water-Powers of Tennessee.

There is just coming from the press a report on the water-powers of Tennessee by the State Geological Survey. The report consists of approximately 136 pages and 12 plates. It was prepared by Prof. J. A. Switzer of the University of Tennessee, hydraulic engineer of the Geological Survey.

The report takes up the subject of the water-powers of Tennessee under "The economic aspects of water-power," "The relation of the State to its water-power resources," "Arguments for water-power legislation," "Recommendations for Tennessee," "The available water-power of Tennessee," "The present development of water-power in Tennessee," "Projected development of water-power in Tennessee," and "The report of the Doe River survey." In addition, it contains Appendix A, which is a digest of the laws of other States with reference to water-power, and Appendix B, which is a digest of the laws of other countries with reference to water-power.

In the prefatory statement the State Geologist says: "This bulletin is the result of an honest attempt to comply with the spirit and, as far as possible, with the letter of Senate Joint Resolution No. 62 of the Fifty-seventh General Assembly of the State of Tennessee. The work of preparing it was entrusted to J. A. Switzer, professor of hydraulic engineering, University of Tennessee, because his training as a hydraulic engineer and the study he had already made of water-power conditions in the State especially fitted him for it. As required by the resolution, the report was ready for the Fifty-eighth General Assembly, but provision was not made for its publication in time to be used by that body."

The bulletin will be No. 17 of the State Geological Survey series, and can be had by applying to the State Geologist, Nashville, Tenn., and remitting the postage, which will be approximately eight cents.

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Wearing Away the Globe.

According to an estimate by Sir John Murray, the total annual rainfall upon all the land of the globe amounts to 29,347.4 cubic miles, and of this quantity 6,724 cubic miles drains off through rivers to the sea. A cubic mile of river water weighs, approximately, 4,205,650,000 tons, and carries in solution, on the average, about 420,000 tons of foreign matter. In all, about 2,735,000,000 tons of solid substances are thus carried annually to the ocean.—United States Geological Survey.

Beaufort's Novel Plan.

Chamber of Commerce,
Charleston, S. C., March 27.

Editor Manufacturers Record:

Beaufort, S. C., a town of about 7000 people, has recently adopted a novel plan, combining the city manager and the secretary of the Board of Trade with the duties of both. You will immediately see the possibilities in this plan for a small city. The business men pay half of the salary and the city government pays the other half. Ground floor offices will be furnished. Upon those matters affecting the city proper he will be under the direction of the City Council. Upon matters affecting the business promotion he will be under the direction of the board of directors of the Board of Trade. As the interests of both constantly interlock, it will save conflict and cut out a great deal of unnecessary expense. This method will insure a constant income and permanency of office.

As this matter will be watched closely

by other small cities in the United States, unquestionably it is necessary that Beaufort secure the best possible equipped man for the position. I have been requested to assist the business men of that town in the securing of such a man, and am going to ask you, as a personal favor, to use your very best endeavor to aid me in this matter. I would request that you write directly to Mr. Charles E. Daner, Beaufort, S. C.

A. V. SNELL, Managing Secretary.

Typical Blizzard Damages.

More than 6000 poles of telegraph and telephone companies went down in the territory of about 100 miles, embracing the cities of New York and Philadelphia, in the blizzard of March 1, according to the April number of the *Western Electrical News*, which summarizes the damage done in mentioning the following emergency shipments: 150 carloads of poles, weighing 13,000,000 pounds; 16,000 miles of wire, weighing 2,300,000 pounds; 14,000 crossarms, weighing 750,000 pounds; 50 miles of cable, weighing 270,000 pounds; 50 miles of strand, weighing 60,000 pounds; 1,000,000 pounds of hardware, tools, tape, connectors, etc.; 200,000 insulators. Total weight of all emergency shipments, approximately 16,500,000 pounds.

Definite Results Gained.

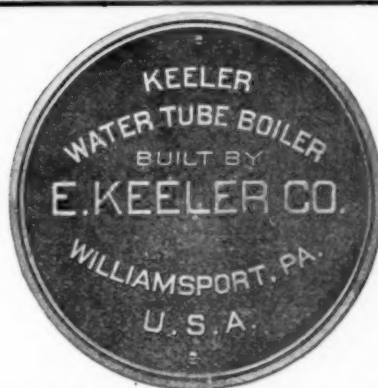
F. K. Harvey of Harvey & Harvey, Mercaderes 4, Havana, Cuba, writes to the *MANUFACTURERS RECORD*:

"We are glad to be able to advise you that we are very much pleased with the

MANUFACTURERS RECORD and with the results obtained from various small advertisements we have had occasion to place in its columns during the past year. We

would not think of allowing the subscription to be discontinued, as it is most useful for any person in the business of manufacturers' agents, as we are."

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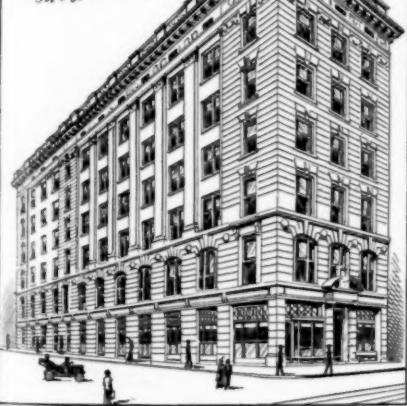
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George P. Ramm, ironing-board attachment.
Charles B. Mercer, collapsible go-cart.
Arthur P. Miller, rubbing board.
Powell D. Padgett, lug strap holder.
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James Peterson, tilling machine.
Francis M. Holder, mechanism for operating automobile headlight.
John B. Smith, folding table.
John D. Stewart, disk sharpener.
Louis A. Stoner, steel crossier.
Fred N. Thayer, supporting device.
Willis Thorson, automatic stop for elevators.
John L. Lundahl, foot measure.
Elton McComas, register.
Louis W. Farquhar, union suit.
James M. Hines, automatic street sweeper.
Samuel James, railway switch.
Elmer A. Benson, fastener.
Patrick P. Andrews, chicken catcher.
Wm. F. Baird, prescription file.
Joseph T. Cooper, combined cooking and heating stove.

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Charles T. Darling, rat trap.
Joseph Gebhart, cork extractor.
George A. Hanks, nursing bottle holder.
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Robert N. Karnes, acetylene-gas generator.
August H. Henke, axle oiler.
Wm. Goldstein, collar button.
Walter J. Clark, tooth paste container.
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Leonard H. Calaway, machine punch.
Sven Rolfsen-Schmidt, door spring.
David E. Peterson, railroad car.
Charles C. Keyser, automobile chassis.
Albert S. Kinney, spring wheel.
Mrs. Mary Eger, flower box.
Daniel G. Alsop, safety gate fastener for elevator.
Bruce G. Nelson, grain saving device.
George R. Christel, hair brush.
Bartholomew Downey, door check.
David B. Bartel, attachment for stove.
Rade Javorina, tie plate and brace.
Wm. G. Born, manifold books.
Charles E. King and Samuel A. Hall, wagon reach.
Benjamin C. Greaves, flying machine.
Lee Brewster, rail.
James J. Dupree, cabinet.
Charles E. Goodrich, rail joint chair.

Michael J. Gogarty, loading and unloading device.
Frederick Holdsworth, automatic weather strip.
Michael Haughey, lock nut.
Jacob W. Wenger, nose-bag support.
George W. Mims, rail joint.
Henry H. Rardon and Elmer B. Rardon, lowering device for coffins.
George H. Williams, rail joint support.
Leslie Edwin Wright, faucet casings.
Wm. T. Luckey, trousers presser.
Russell Lathrop, puzzle.
Mrs. Josie W. Rodes, telephone stand.
Fred A. Wheelock, comb, cultivator and weeder.
Lottie Williams, seam ripper.
Dorcie R. Nugen, automatic airbrake coupler.
Michael Lunney, sink trap cleaner.
James Wood, pin.
Marion I. Randall, lamp cord reel.
John S. Peters, transmission gear for motor vehicles.
James T. Walker and Andrew G. Jones, lap link loggerhead hooks.
Elbert N. Todd, envelope.
Strother Watson, mailbag catcher.
John H. Ferguson, fender.
Charles Heer, water tank.
Patrick Flynn, bottle indicator.
Roy Jackson and Stanley B. Novotny, vehicle lamp.
Wm. E. Glover, puttying machine.

Charles F. Grainger, registering machine.
Edwin J. Hiller, pipe hanger.
Gilbert Halversen and Olaf Kroglund, compass.
Daniel M. Harrison, window-shade roller.
Charles J. Boise, shoe brush.
Arthur E. Boist, plow.
Cheves Beville, incubator.
Herman R. Blumberg, safety device for press.
George S. Evans, brake shoe.
John Bush, dustless ash sifter.
Ira W. Goodwin, spring frame for bicycle.
Hugh Cooney and Orris E. Wiltzie, tire.
Jay Gould Cory, disinfecting device.
Alexander R. Kerr, ash sifter.
Edgar H. Dull, angle bar.
Adolph Lueke and James O'Brien, door.
Herman Schroeder, connector for electric current carrying conductors.
Harry H. Phillips, automatic brake.
George L. Stanley, liquid stove polish brush.
Harry A. Wier, mops.
Joseph Prash and Solomon Tripp, joint structures.
Albion K. Nixon, sanitary nursery chair.
Hermann E. Schmidt and Matthew W. Arens, game registering cabinet.
Arthur D. McColeman, cattle guard.
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We have recently secured the following patents. A copy of any of these patents will be forwarded upon receipt of ten cents. Address all communications to Sales Dept., Victor J. Evans & Co., Washington, D. C.

Classified Opportunities

MEN WANTED

SALESMAN—BUILDING TRADE.—One thoroughly acquainted with architects and contractors to sell high-class building specialty in your vicinity. Commission basis only, from the start. Leads furnished. References required. Address No. 1475, care Manufacturers Record, Balto., Md.

AGENTS WANTED among supply dealers and salesmen for an exceptional house-lighting machine, suitable for small homes as well as large; simple, durable, economical; satisfaction guaranteed to customers; has excellent selling points; a live proposition. Write for terms. The Alexander N. Milburn Co., Baltimore, Md.

WANTED—A man who has had experience in laying brick pavement, to superintend the laying of 14 miles of brick pavement out of Lake Charles, Louisiana. Only men of experience and ability need apply. Healy Construction Co., Box 405, Meridian, Miss.

AGENCIES WANTED

WANTED—Several lines of building supplies to represent in Baltimore as manufacturers' agent. Address No. 1503, care Manufacturers Record, Balto., Md.

GERMANY.—We want to represent American manufacturers in Germany. H. Drawe & Co., Agents, Frankfurt a. M., Germany.

WANTED—Accounts with manufacturers desiring representation in supplies for fruit growers for Virginia; two years' experience in fruit industry. Address No. 1490, care Manufacturers Record, Balto., Md.

SPECIALTY LINE WANTED.—I would like to secure the agency and represent some specialty concern that has an article of any kind with merit they wish to market. Address P. O. Box 739, Richmond, Va.

WANTED—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

SITUATIONS WANTED

CHEMIST AND ENGINEER, 8 years' experience in resinous and non-resinous wood extraction and utilization in tannin and pulp production; wishes connection with firm desiring to make practical field and laboratory investigation into the possibility of profit from utilization of their wood waste; best of credentials as to scientific and practical engineering attainments. Address No. 1500, care Manufacturers Record, Balto., Md.

EXPERIENCED cotton-yarn salesman, familiar with the manufacturing trade both East and West, desires to make a change; will shortly be open for engagement; communications confidential. Address for one week No. 1501, care Manufacturers Record.

EXPERT cost accountant and efficient, practical, labor-saving systematizer with broad experience in manufacturing business, desires a permanent position anywhere; \$30 weekly to start; age 26. R. Foster, 62 Grove St., White Plains, N. Y.

CHANGE DESIRED by result getter in development work; now in charge of Cham. of Com. in one of most important sections of California. Submit proposition to P. H. LaBaume, A. & I. Agt., N. & W. R. R., Roanoke, Va.

A SUPERINTENDENT who has had 20 years' experience as superintendent and estimator for high-class buildings is open for position with good builder; can furnish first-class reference. Write Superintendent, 915 Main St., Fredericksburg, Va.

DRAFTSMAN, skilled, seeks change; salary not important. Address Williams, 38 Schermerhorn St., Brooklyn, N. Y.

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RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Splendidly equipped new engineering laboratories. Send for catalogue to Registrar.

SOUTHERN HOME

FOR SALE—Handsome home and grounds cheap; central location; orange grove; fronts best resident street; rear on beautiful lake; city 7000. George Colburn, Box 73, Lake City, Fla.

MARYLAND HOME

FOR SALE—Beautiful home in Dickerson, Md.; new 8-room house; all modern conveniences; close to school and churches; 200 yds. from R. R. station; excellent bass fishing in Potomac and Monocacy nearby; price right to quick purchaser. D. H. Mullinix, Dickerson, Md.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c per line, 300 lines 16c per line; 500 lines or more, 15c per line.

TRUST COMPANY WANTED

WANTED—TRUST COMPANY.—Southern city, 20,000 people, 400,000 people radius 60 miles, wants trust company; splendid opportunity; assistance locally. Address No. 1499, care Manufacturers Record, Balto., Md.

BUSINESS OPPORTUNITIES

FOR SALE—The leading furniture business in the city of Valdosta. Good reason for selling. Everything up to date in this line. Can make terms to the right party. J. G. Mackey Real Estate Co., Valdosta, Ga.

WANTED—NORTH CAROLINA TIMBER LAND.—To exchange for clear and unincumbered Washington City property, 9 three and four family flats, for timber. I am constantly in need of large Southern tracts for sale and exchange, for good residence income and business properties, in Washington and other cities. Arthur M. Connor, Farms, Timber and Coal Lands, 224 Oxford Building, 14th and N. Y. Ave. N. W., Washington, D. C.

CATTLE RANCH.—Have 12,000 acres good grazing land; want young man to put in some money and take active interest in cattle proposition. Experience not necessary. No. 1496, care Manufacturers Record, Balto., Md.

AN INTEREST, together with active management at good salary, is offered for sale in a new light and ice plant in good small town in the best section of South Texas. Proposition will bear strictest investigation. Party must be a thorough steam and refrigerating engineer and highly recommended. Must have at least \$5000. Address No. 1472, care Manufacturers Record, Balto., Md.

EXCELLENT PHOSPHATE ROCK DEVELOPMENT OPPORTUNITY.—The sole owner of some of the most valuable phosphate rock deposits in Florida lacks the necessary capital to open up and develop these properties, and wants to interest someone able to finance the development, or would be willing to sell under certain conditions. For full particulars address "Phosphate," care Manufacturers Record, Balto., Md.

FILLS A LONG-FELT WANT.—A trouser supporter, consisting of a belt with patented fasteners, resting on the hips, yet perfectly supporting the trousers at the desired height. Invisible, practical, comfortable, adjustable to any trousers. Broad patent for sale or on royalty. Address A. L. Abercrombie, 25 N. Palmetto St., Daytona, Florida.

WANTED—To connect with brokers or individuals who can place a part or all of \$25,000 worth of good first mortgages on improved property in Richmond, Va. Liberal commission allowed. Address No. 1452, care Manufacturers Record, Balto., Md.

WE TURN real estate, residence lots or farms into cash. We are equipped in every way to promote land sales in all parts of the United States. Everything sold exclusively at auction and on commission. Write us. Our representative will inspect your property. National Real Estate & Auction Co., 1024 Woodward Bldg., Washington, D. C.

THE manufacturer of a pumping device for supplying water for country homes, small towns and manufacturers. 12 years on the market; offers the patents, good will and established business for sale; other business requires attention of owners; \$10,000 to \$15,000 required. Charles R. Long, Chester, Pa.

TO EXCHANGE FOR CASH OR CHICAGO VACANT OR INCOME PROPERTY.—In Drew county, Ark., a farm of 146 acres, unincumbered; 60 acres in cultivation; 40 in meadow; balance in virgin oak timber; chocolate loam soil, level, no rocks, no hardpan, no overflow; cultivated part and meadow enclosed with good hog-proof steel wire fence. This farm is located at edge of a nice inland town of white people; good schools, churches, fine roads connecting with good railroad town, 8 miles, and county seat, 14 miles. New 2-story frame house, nicely finished, located on edge of 6-acre village park, which belong to the farm; nice yard of old oak trees; abundant supply of good water; barns, smokehouse and other outbuildings, good garden, small orchard. This is one of the finest old homes and choicest farms in Southern Arkansas. Price \$5000. Address John E. Fellers, 4933 Michigan avenue, Chicago.

I WANT to hear from the board of trade of some town in Southern Virginia or North Carolina in the vicinity of which there is abundance of small pine; a town in which the business men will invest \$50,000 in a plant to manufacture this small pine into a product which will give back the investors a clean profit of \$50,000 every year. The product will be sold in Virginia and North Carolina. I have details ready to submit. Address No. 1502, care Manufacturers Record, Balto., Md.

TWO valuable patented car equipments need financing, or manufacturing and marketing facilities. Full particulars freely given. Write Henry Fresh, Box 89, Cumberland, Md.

SPLENDID LOCATION for wholesale grocery or dry goods store; extraordinary opportunity for large machinery house. I own a lot, size 16x25, facing two railroads, being an ideal location for wholesale or warehouse proposition, and I want to interest someone in coming in here. Address A. Hicks, P. O. Box No. 396, Tyler, Smith county, Texas, the Shipping, Jobbing and Trade Center of the Great East Texas Farming Country.

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MODELS MADE FOR INVENTORS.—General machine work. Designing and perfecting. Developing automatic devices and machinery. In a position to do all kinds of light tool and machine work. Prices reasonable. Estimates cheerfully given. Ideal Machine Works, 64 Ann Street, New York City.

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COMMITTEE ON NEW ENTERPRISES, Terrell Commercial Club, invites correspondence relative to establishing cotton mill. Citizens stand ready to assist substantially any person or persons who will show their faith in the enterprise by investing capital therein. Address E. D. Kelly, Chairman, Terrell, Texas.

MISCELLANEOUS

HENRIETTA, TEX., offers unlimited supply natural gas to manufacturers; fire brick, tile shales; water; low taxes; healthful; 3 railroads; unusual opportunity legitimate enterprises. Address Booster Club.

BLUEFIELD, WEST VIRGINIA, the gateway to the vast Pocahontas coal fields, and the distributing point for half a million contented laborers, needs an overall factory, needs a mine implement factory, and needs a brick plant. Address C. T. Boykin, Secretary Bluefield Chamber of Commerce.

A SMALL RAILROAD will do more to meet your requirements than a large one. The Randolph & Cumberland R. R. is in the undeveloped section of North Carolina's best region, and on this line are splendid opportunities and an open field for a woodworking plant, cannery, brick plant, cotton or hosiery mill, besides other industries. We also have splendid low-priced farm lands in our territory. Write to J. R. McConnell, Industrial Agent, R. & C. R. R., Carthage, N. C.

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FOR LEASE—CHOICE WAREHOUSE.—2-story brick, plate-glass front, 13,800 sq. ft., S. E. Cor. Markham and Commerce. Liberal terms to responsible tenant. Wehrfritz Mch. Supply Co., 117 Commerce, Little Rock, Ark.

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HANDSOME BUSINESS HOUSE IN LAKELAND FOR RENT.—A big opening for a large business to be managed by a wide-awake business man. In one of the best locations in the State for a department store or a mail-order house, or a big supply business, such as heavy machinery, buggies, wagons and farming implements. This store is located in Lakeland, Fla., on the main street. No better location in the city. This is a two-story brick building, and has 16,000 feet of floor space. Has a 16-foot balcony around the entire building. Electric elevator in the rear. The main body of the store is 47 by 127 feet. Lakeland has about 10,000 inhabitants and is busy the year around. We have 30 passenger trains in and out of Lakeland daily. If you are interested in this proposition, wire, phone or write J. W. Kimbrough, owner, Lakeland, Fla.

FACTORY BUILDING FOR SALE OR RENT

LARGE STEAM FACTORY and other new buildings for sale at 1/2 cost or very low rental, immediate possession, cheap electric power, at Shrewsbury Station, York, Pa.; less than 35 cts. car fare to Baltimore, Md.; 46 miles to Harrisburg, Pa.; abundant cheap white male labor; finest climate; best spring and reservoir water; low taxes; abundance of finest clay for brick or clay products, and hardest stone quarry for lease. Address Edward Heib, Railroad, Pa.

INDUSTRIAL PLANTS FOR SALE

SCREEN DOOR AND ELECTRIC LIGHT PLANTS ASSIGNEE MUST SELL.—Screen-door factory, capacity 500 doors per day; electric-light plant with 20-year franchise, in growing city. Address L. L. Thompson, Lillbourne, Mo.

MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

FOR SALE—Orange groves, farms, cut-over lands, timber lands of all kinds, and brokerage. Address George A. Mawman, 109 Second St., Palatka, Florida.

BAUXITE, fuller's earth and kaolin deposits for sale outright or on royalty basis. We are in position to furnish you with farm lands or mineral clay lands anywhere in South Georgia. Southern Insurance & Realty Company, E. W. Gould, R. C. Houser, Georgia Life Bldg., Macon, Ga.

FOR SALE—410 acres of stone and timber land, 10 houses, 1 mile of railroad track, unlimited supply of high-grade limestone. A lime plant, consisting of 3 patent iron kilns. Will sell at a sacrifice. Polk Real Estate Co., 102 Louisiana St., Little Rock, Ark.

CITY PROPERTY

FOR SALE—40 acres, all ready for an auction, divided into 171 lots, only 4 blocks from the Government building; a splendid opportunity for someone to double his money. J. G. Mackey Real Estate Co., Valdosta, Ga.

PHOSPHATE ROCK DEPOSITS

FOR SALE—500 acres of blue rock phosphate land near Mt. Pleasant, Tenn., containing 2,000,000 tons running from 55 to 72% bone phosphate of lime. Spur of L. & N. R. R. runs through it. Capt. W. N. Hughes, U. S. A., 523 1/2 Broadway, Nashville, Tenn.

COAL LAND FOR SALE

FOR SALE—800 acres coal land in Jackson county, Ala., hill showing good grade coal on sides in Bon Air and Orem Belt. Write E. H. Marshall, Union City, Tenn., for particulars.

TIMBER LAND FOR SALE

TWO HUNDRED THOUSAND (200,000) acres timber land in Florida, containing over 5,000,000 feet of original growth pine; has been cruised by expert; placed on the market for the first time at a very low figure. South Carolina timber; 15,000 acres on the Atlantic Coast Line and Southern Railroad. Estimated 65,000,000 feet short-leaf pine. For price and full particulars apply to Johnson's American and Foreign Real Estate Exchange, 945 Pennsylvania Avenue, Washington, D. C.

A FEW GOOD TRACTS in Southern States at prices attractive for investment or operation. Hemlock, spruce, oak, poplar, gum, cypress. Real Estate Investment Co., 816 Connecticut Ave., Washington, D. C.

TIMBER AND TIMBER LANDS IN ALABAMA.—Tracts of virgin pine and hardwood, 5000 to 20,000 acres each; fee simple; all finely located; 9000-acre tract pierced by main trunk-line railroad and admirably situated for colonization; cut good; prices right. Correspondence solicited from parties meaning business; otherwise don't write. T. M. Bradley, 1025 First National Bank Bldg., Birmingham, Ala.

TIMBER TRACTS located for manufacturers or investors by practical timbermen. Correspondence solicited. Jo A. Parker, Parma, Mo.

MANUFACTURER desiring medium size tract of yellow pine timber at favorable price can learn of something to his advantage by addressing Box 27, Ellisville, Miss.

I HAVE for disposal extensive valuable timber properties in British Columbia: cedar, fir, spruce, larch, hemlock, Alaska pine; located so that the manufactured lumber will cost \$8 to \$11 per 1000 feet in Vancouver; principals only. A. A. Wright, 104 Rende St., New York.

FOR SALE—21,000 acres timbered land in central-western N. C.; timber estimate, 80,000,000 ft. pine and hardwood. Price and terms reasonable. Box 244, Fayetteville, N. C.

Classified Opportunities

SAW MILL AND TIMBER

FOR SALE—One new hand mill, complete, suited for cutting hardwood, and 30,000,000 feet of hardwood, mostly cypress, oak and poplar; about the same amount of timber can be obtained from other parties near mill. Will sell cheap. Terms easy. Arlington Lumber Co., Arlington, Ga.

FARM AND TIMBER LANDS

ARCHIE M. SMITH, No. 1212 Hibernia Bank Building, New Orleans, La. Timber and agricultural lands in all parts of State for sale. Special attention given to property of non-residents.

FARM AND TIMBER LAND on the easy-payment plan; some small improved tracts; good for cotton, corn, alfalfa and grain. Prices from \$4 to \$25 per acre. W. Knight, Real Estate Dealer, Bigelow, Arkansas.

FOR SALE—1000 acres, some alfalfa, corn and any other crops, well located. 280 acres, nearly all in timber, 30 miles from Birmingham, Ala. Price \$20; 1/2 cash; balance long time. Address owner, Dr. Sam P. Hand, Demopolis, Ala.

COLONIZATION LANDS

COLONIZATION TRACT.—We own clear 40,000 acres of high land in South Mississippi, 35 miles from Gulf. Big demonstration farm, model dairy, silos, nursery, canning factory, refrigerating plant, cash market, big co-operative farmers' association. Everything a live organization needs to make a success; 400 prosperous, satisfied farmers. Rich soil. All the land lies along two railroads. We will sell the land cheap to responsible parties who can carry on our work of selling this land to settlers. We are lumbermen and not able to give proper attention to marketing this tract. Address, with some information as to your financial responsibility, G. A. McCollum, 620 Society for Savings, Cleveland, Ohio.

RANCHES FOR SALE

WAR-TIME PRICE on 40,000-acre cattle ranch. Money in operation, and it will enhance in value. T. M. Richardson, Jr., El Paso, Tex.

5000-ACRE RANCH in Houston county, Texas; very rich black soil, all under fence; will grow from one to two bales of cotton per acre; virgin timber on land not in cultivation; fine proposition. Address P. O. Box 99, Crockett, Texas.

COLONIAL ESTATES AND STOCK FARMS

COLONIAL ESTATES AND STOCK FARMS in Virginia. Green & Redd, Richmond, Va.

FARMS AND SUBURBAN HOMES

FARM AND SUBURBAN HOMES.—Send for complete catalogue of farms and suburban homes in Virginia and convenient to Richmond for poultry, trucking, etc. Address Catalogue, P. O. Box 789, Richmond, Va.

LAND WANTED

LAND WANTED.—Party wants large boundary cheap land, with or without timber, in Virginia, North or South Carolina. Give location, price and terms. Room 305 Mechanics' Building, Petersburg, Va.

FRUIT, FARM AND TRUCK LANDS

ALABAMA

WHY BUY FARMS IN CANADA when far better and lower-priced land is obtainable in the sunny South? 2200 acres in black belt, Dallas county, Alabama; close proximity to thriving town; intersected by new macadamized State highway, also by railroad; pronounced by Agricultural Department adapted for alfalfa raising; also for pecans, cotton, corn and stock; at \$25 per acre, entire tract, or smaller parts at \$35 per acre. For particulars write Prairie Land Alfalfa Co., 608-12 Barrister Bldg., Washington, D. C.

ARKANSAS

FOR SALE—Extra fine farm, 565 acres, 3 miles from Hermitage, in Bradley county; 140 acres in high state of cultivation; 3 good houses; good barn; wire fence; telephone connection; on mail line; in good neighborhood; also four good mules and complete set farming tools; total price \$8000; part cash, balance on terms. L. E. Purdy, Fordyce, Ark.

FAMOUS SPRINGDALE FRUIT DISTRICT.—Best part of Ozarks; fine class of people; no malaria, mosquitoes, negroes, saloons; pure soft water. Summer homes, bearing orchard, cheap stock lands. Free lists. Fredricks, Springdale, Arkansas.

FLORIDA

IF YOU WOULD LIKE TO HAVE A NICE HOME or make a profitable investment in this fair land, write me for full and free information as to soil, climate, resources, industries and opportunities in any part of the State. J. H. Brinson, Ocala, Fla.

FOR SALE—Vegetable farm, 10 acres, 5 cleared and irrigated, ready for fall crops; nice bungalow, big barn, chicken-houses, tool-house, horses, wagons, tools, 2 flowing wells; healthy location, good drainage, high and dry; proven section; big bargain; good reason for selling. Box 867, Sanford, Fla.

THREE MONTHS FREE.—Subscription to the Indian River Farmer. For truckers, fruit growers, general farmers, and folks who want to know about Florida. Address Indian River Farmer, Dept. "V-1," Vero, Fla.

THE PALATKA FARMS COMPANY of Palatka, Florida, offers to homeseekers the very superior advantages of splendid soil, adapted to potatoes, corn and trucking, or that for oranges and grapefruit, or for combination of both, with location unsurpassed, lying along the beautiful St. Johns River, 2 miles of Palatka, an up-to-date city of 8000 population. It boasts of electric light and gas plants, four railroads and cheap river transportation. Write for literature. P. J. Becks, Palatka, Fla.

FOR SALE—50,000 acres in St. Lucie county, Florida; 50,000 acres in Brevard county, 10,000 acres in Dade county, 20,000 acres in Manatee county; all well located; excellent colonization tracts. Address P. F. Quinn, Vinton, Ia.

GEORGIA

850 ACRES fine farming land as you will find in Georgia, \$25 per acre; will raise anything that grows in Central Ga.; close to railway and county seat. Southern Ins. & Realty Co., Ga. Life Bldg., Macon, Ga.

FOR SALE—A 40-acre pecan grove, trees bearing now, adjoining the city limits of Valdosta, one of the best cities in Georgia; this grove easily worth \$700, but for a quick sale will let it go for \$375 per acre. J. G. Mackey Real Estate Co., Valdosta, Ga.

LOUISIANA

SPLENDID NORTH LOUISIANA FARM FOR SALE—I own in North Louisiana splendid 400-acre farm. Will sell to good farmer and agree to take back and refund purchase price in five years, paying purchaser 6 per cent. interest on his money if he be not satisfied at end of that time. Wm. B. Reilly, care The Reilly-Taylor Company, New Orleans, La.

MARYLAND

ONE OF THE FINEST FARMS in Harford county, Maryland, three miles from Darlington, the social center of the county, situated on the Susquehanna River; fishing club near; excellent rock fishing; on the new State road between Maryland and Pennsylvania, 20 miles from Baltimore, located right in the heart of the blue grass regions of Harford county; many Virginia families maintain estates here; excellent for stock raising. This farm contains 290 acres, with a mansion of 16 rooms and bath, modern in every sense; house alone cost \$26,000; all new fencing of post and rail and panel over entire farm. Views from any portion of the estate looking into three counties; always recognized as the finest farm in this section of Maryland. This property can be bought for \$30,000, and satisfactory terms can be made to purchaser. The Webb & White Co., 717-729 Title Bldg., Baltimore, Md. St. Paul 5966-5967.

FOR SALE—Productive Carroll county, Md. farm; 350 acres; near railroad station; stone dwelling; necessary outbuildings, all in good order; well watered; fruit; complete equipment if desired. J. Harry Igo, Professional Bldg., Baltimore, Md.; D. Sterrett Gittings 401 Maryland Trust Bldg., Baltimore, Md.

MISSISSIPPI

GRAPEFRUIT, SATSUMA, ORANGES AND PECANS have been profitably grown for 14 years on the Mississippi Gulf Coast; orchards 5 years old are paying \$500 per acre and over annually. I plant and develop for you under contract, pay you 6% annually on your investment for 5 years, turning over an orchard that under normal conditions will pay you over \$5000 annually and be worth easily three times what it cost you; have over 600 acres in orchard. C. H. Woodward, Ocean Springs, Miss.

FARM LANDS in large and small tracts, stock plantations and colonization bodies. Southland Realty Co., Corinth, Miss.

TEXAS

ARE YOU IN BAD HEALTH? Then buy an irrigated alfalfa or fruit farm in this most perfect climate; get well in 1, 2 or 3 years and sell out at a profit. Write about this. Fruit or alfalfa ranches irrigated by the \$10,000,000 Govt. dam at Elephant Butte. T. M. Richardson, Jr., El Paso, Tex.

WEST VIRGINIA

FOR SALE—One and five acre farms near junction of two railroads. H. L. Alexander, Martinsburg, W. Va.

FINANCIAL

\$10,000 WORTH 8% vendors lien paper for sale. Well secured by land. T. M. Richardson, Jr., El Paso, Texas. Real estate paper bought and sold.

FLORIDA.—Will sell \$5000 par value stock of Sarasota Improvement Co. at 90. Refer in Baltimore to R. C. Caples, a director in the company. Executives declare worth 125. Address Box 477, Sarasota, Florida.

WAGONS FOR SALE

WAGONS FOR SALE.—Ten Troy dump-bottom reversible traction wagons, 3 1/2-yard, with 10-inch tires; have been used four months. Geo. G. Henderson, care Manufacturers Record, Balto., Md.

DREDGE FOR SALE

1 1/2-YD. DREDGE FOR SALE.—Dredge now at work on drainage canal; can make delivery in 30 to 60 days. Dredge almost new. Will sell cheap. Box 23, Greensboro, N. C.

PATENTS FOR SALE

A REAL OPPORTUNITY.—The only really practical harness rack for display purposes or for the farmer; made of metal. Will sell patent or place on royalty. Write S. B. Dyer, Tulia, Tex.

STOP, STAY OUT AND WONDER.—Latest improved double combination door lock, operated with two keys in connection with the knob and spindle; absolutely burglar-proof. The lock is of ordinary size and form. For further information apply to James T. Brockin, Huffman, Ark.

PATENT ATTORNEYS

BUSINESS goes where invited and stays where well treated. My 27 years of personal attention has procured patents for successful inventors and manufacturers. Grasp this opportunity to get the same service. Send sketch. Vernon E. Hodges, 631 Barrister Bldg., Washington, D. C.

EUGENE C. BROWN, ENGINEER AND PATENT LAWYER, Suite 40 Victor Building, Washington, D. C. Member Bar U. S. Supreme Court. Patents and Trademarks. Inventions are considered both from Engineering and Legal standpoints in my prosecution of patents. An experience of over 9 years as Examiner in U. S. Patent Office and over 6 years as Patent Expert in important patent suits are my especial qualifications. Reports upon validity and infringement. Send sketch of invention for advice.

PATENTS.—Herbert Jenner, patent atty. and mechanical expert, 606 F St., Washington, D. C. I report free of charge if a patent can be had and its exact cost. Send for circular.

PATENTS THAT PROTECT.—Careful, honest work in every case. Patent your ideas; they may bring you wealth. 64-page book free. FitzGerald & Co., 817 F street, Washington, D. C. Established 1878. Send for our book.

PATENT YOUR INVENTION.—Send sketch for free expert search and report as to patentability. Books on inventions and patents, and book of references from congressmen, manufacturers, bankers and inventors, sent free. John S. Duffie & Co., Patent Attys., 620 F St. N. W., Washington, D. C.

PATENTS THAT PROTECT AND PAY. Advice and books free. Highest references. Best results. Promptness assured. Send sketch or model for free search of Patent Office records. Trade-marks registered. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

PATENT YOUR IDEAS.—\$9000 offered for certain inventions; book, "How to Obtain a Patent" and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chand-lee & Chand-lee, patent attorneys, 978 F street, Washington, D. C.

PATENTS secured or Fee returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for one invention; \$15,000 for others. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., Washington, D. C.

GOOD PRINTING

THE character of your printed matter makes an indelible impression—good or bad—upon those who see it. More people gauge your standing—the character and quality of product—your up-to-dateness—by that than by any other one thing. Therefore, the need for the right kind of printing.

Our hobby is good printing—not fancy, fussy printing—but good printing, with character, quality and finish—the right type, right stock, right illustrations—all blended into a strong, dignified whole—the kind that will make a good impression for you.

Give us a chance on your next job.

Fleet-McGinley Co.
PRINTERS
Baltimore, Maryland

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

GOVERNMENT PROPOSALS

PROPOSALS FOR DYNAMITE, SAFETY Fuse, Blasting Caps, Detonators, Induction Motors, Transfer Car and Trucks for Dry Kilns, Wire Cable, Re-enforcing Bars, Steel, Rivets, Bolts, Track Spikes, Nails, Cable Clips, Track Chisels, Bronze-wire Cloth, Axes, Paintbrushes, Floor Brushes, Steel-wire Brushes, Ratchet Braces, Portable Forges, Tackle Blocks, Buckets, Ice-cream Freezers, Fire Brick, Magnesia Pipe Covering, Chair Seats, Emery Cloth, Steel Squares, Lumber Crayons, Library Paste, Rubber Bands, Cardboard, Paper and Grain Alcohol. Sealed proposals will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10:30 A. M. April 18, 1914, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 837) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1066 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. F. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 31, 1914. Sealed proposals will be opened in this office at 3 P. M. May 12, 1914, for the construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of the United States postoffice at Longview, Tex. Two-story-and-basement building; ground area 3800 square feet; construction non-fireproof; stone and brick facing; composition and slate roof. Drawings and specifications may be obtained from the custodian of site at Longview, Tex., or at this office, at the discretion of the Supervising Architect, O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 31, 1914. Sealed proposals will be opened in this office at 3 P. M. May 11, 1914, for the construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of the United States postoffice at Huntingdon, Pa. Two-story-and-basement building; ground area, 4800 square feet; fireproof construction; stone and brick facing; composition roof. Drawings and specification may be obtained from the custodian of site at Huntingdon, Pa., or at this office, in the discretion of the Supervising Architect, O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 31, 1914. Sealed proposals will be opened in this office at 3 P. M. May 9, 1914, for the construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of the United States postoffice at Hampton, Va. The building is one story and basement, with a ground area of approximately 4620 square feet; stone and brick facing; composition roof; first floor of fireproof construction. Drawings and specifications may be obtained from the custodian of site at Hampton, Va., or at this office, in the discretion of the Supervising Architect, O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 31, 1914. Sealed proposals will be opened in this office at 3 P. M. May 11, 1914, for the construction, complete (including mechanical equipment, interior lighting fixtures and approaches), of the United States postoffice at Huntingdon, Pa. Two-story-and-basement building; ground area, 4800 square feet; fireproof construction; stone and brick facing; composition roof. Drawings and specification may be obtained from the custodian of site at Huntingdon, Pa., or at this office, in the discretion of the Supervising Architect, O. WENDEROTH, Supervising Architect.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 25, 1914. Sealed proposals will be opened in this office at 3 P. M. May 2, 1914, for the grading, etc., of the grounds and the construction, complete (including mechanical equipment and approaches) of an animal house for the Hygienic Laboratory, Washington, D. C. Two-story-and-basement building; ground area, 4200 square feet; fireproof construction except the roof; brick facing; composition roof. Drawings and specifications may be obtained from the custodian of site at the Hygienic Laboratory, Washington, D. C., or at this office, O. WENDEROTH, Supervising Architect.

U. S. ENGINEER OFFICE, Galveston, Texas, March 25, 1914. Sealed proposals for construction of pontoon pipe lines for dredges Sam Houston and San Jacinto will be received at this office until 11 o'clock A. M. April 24, 1914, and then publicly opened. Information on application. C. S. RICHE, Lieut.-Col., Engrs.

PROPOSAL ADVERTISING INFORMATION

RATE: 20 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—20 cents per line per insertion.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 25, 1914. Sealed proposals will be opened in this office at 3 P. M. May 4, 1914, for the construction, complete (including mechanical equipment, lighting fixtures, and approaches), of a one-story, basement and mezzanine, brick-faced building of 3900 square feet ground area, fireproof construction (except the roof), for the United States postoffice at Shelbyville, Tenn. Drawings and specifications may be obtained from the custodian at Shelbyville, Tenn., or at this office. O. WENDEROTH, Supervising Architect.

BOND OFFERINGS

Street Paving Bonds City of Orlando, Florida

Notice is hereby given that sealed bids will be received by the Bond Trustees of the city of Orlando, Florida, up to noon April 6, 1914, for the purchase of \$100,000 five per cent. street-paving bonds, said bonds being of the following denominations: of \$500 each, all due thirty years after date of issue.

Interest payable semi-annually. No bids will be considered for less than par. All bids must be accompanied by certified check for an amount equal to two and one-half per cent. of the par value of the bonds bid for.

Right is reserved to reject any or all bids. More information in regard to these bonds will be furnished upon application to Bond Trustees.

Dated Orlando, Florida, March 5, 1914.

(Signed) E. G. DUCKWORTH,

D. LOCKHART,

J. T. HENDRICKS,

Bond Trustees.

Notice of Bond Sale

Notice is hereby given that on or before the 8th day of April, 1914, at the hour of 2 o'clock P. M., at the office of the Superintendent of Public Instruction in the city of Ocala, Florida, the Board of Public Instruction for the County of Marion, State of Florida, will receive sealed bids for the purchase of one or more of the (75) bonds to be issued by Ocala Special Tax School District Number 1 of Marion County, Florida, said bonds being of the denomination of one thousand dollars (\$1000) each, maturing twenty (20) years from their date, bearing five (5) per cent. interest, payable annually on July 1.

A deposit in the form of a check certified by the bank upon which it is drawn, or a cashier's check, amounting to two per cent. (2%) of the bid will be required of each bidder; such deposit to be a guaranty that the bidder shall comply with the terms of his bid.

The said Board reserves the right to reject any and all bids.

Done by order of the Board of Public Instruction for the County of Marion, State of Florida, at its session on the 19th day of February, 1914.

J. H. BRINSON,

Secretary of said Board of Public Instruction for the County of Marion, State of Florida.

Bonds For Sale

Marion, Va. The Board of Supervisors of Smyth County, Virginia, will sell bonds to the amount of \$185,000; \$50,000 of the same for road improvement in the Rich Valley District, payable in 30 years, with the option of the Board of redeeming one-half in 15 years; \$90,000 for road improvement in the Marion District, payable in 30 years, with the option of redeeming one-half in 12 years and one-half in 18 years; \$45,000 for road improvement in the St. Clair District, with the option of redeeming one-half in 12 years and one-half in 18 years.

Until Wednesday, the 29th of April, 1914, at 12 o'clock noon, bids will be received by the Board at Marion, Va., for the purchase of the said bonds, and it will also receive bids at the same time for the purchase of the whole issue of \$185,000, redeemable in 30 years.

All bids must be accompanied by certified check for \$250 as a guarantee of good faith. The Board will reserve the right to reject any and all bids.

For further information address Geo. F. Cook, Comth. Atty., Marion, Va.

City of Wauchula (Florida), \$3000 Paving and Street Improvement Bonds, \$15,000 Sewerage System Bonds, \$22,000 Water-Works Bonds

Notice is hereby given by the Board of the Bond Trustees of the City of Wauchula, Florida, that, subject to the conditions hereinafter named, sewerage system, water-works and paving and street-improvement bonds of said city, dated January 1, 1914, in the total amounts and for the purposes above named, bearing interest at six per centum (6%) per annum, payable semi-annually, will be offered for sale to the highest and best bidder or bidders therefor (at a price, however, not less than ninety-five (95%) per centum of their par value plus the accrued interest to date of delivery of the bonds), at the Council Chambers of the City of Wauchula, State of Florida, on the 25th day of April, A. D. 1914, at the hour of 1 o'clock P. M. of that day.

The principal of all of said bonds is payable in thirty years their date without option of prior payment.

The Board of Bond Trustees agrees to furnish the purchaser or purchasers, free of charge, upon delivery of the executed bonds, a complete certified transcript of the proceedings leading up to the issuance of and relating to said bonds, with due proof of a compliance with the requirements of Chapter 6237 of the Session, Laws of 1911 of the State of Florida, relating to validating bonds, with the written professional opinion of F. Wm. Kraft, Bond Attorney, Chicago, Illinois, as to the legality of said bonds. All tenders, bids or offers to purchase any of said bonds shall be unconditional except as to the terms and conditions stated in this notice, and such bids shall be addressed to the undersigned Board of Bond Trustees, accompanied with a certified check upon one of the banks of the City of Wauchula, Florida, unconditionally payable to the order of the "The Board of Bond Trustees" of the City of Wauchula for an amount not less than three per centum (3%) of the principal of said bonds, which bid shall be made to insure good faith on behalf of the bidder. The Board of Bond Trustees reserves the right to reject any or all bids or offers of purchase. No bids less than ninety-five per centum (95%) of the principal of the bonds plus the accrued interest on said bonds to the date of delivery of said bonds or for anything else than cash will be considered.

Dated this 16th day of March A. D. 1914.
C. J. CARLTON,
T. G. WILKINSON,
GEO. S. WILLIAMS,
Board of Bond Trustees of Wauchula, Fla.

Notice of Bond Sale

\$40,000 Greenville County Bonds. Bids accepted to noon April 22. For information apply to

W. R. CATO, Agent,
No. Emporia, Va.

Bond Sale

Yoakum, Texas.

Forty \$1000 street-improvement bonds, 5 per cent. semi-annual interest, bonds dated April 2, 1914, City of Yoakum, Texas. Mail bids with certified check for \$2000 to J. M. Haller, Mayor, Yoakum, Texas. Bids will be opened 4 P. M. April 7, 1914.

PAVING AND GOOD ROADS

Grading and Graveling

Bids will be received by the Road Commissioners of the Third Supervisors' District of Chickasaw County, Mississippi, at office of R. J. West, Attorney for Commissioners, Okolona, Mississippi, up to 2 o'clock P. M. April 30, 1914, for grading and graveling about nine and one-half miles of roads in said district. Profile and specifications may be seen at office of R. J. West, Okolona, Miss.

State Highway

STATE OF MARYLAND,
STATE ROADS COMMISSION,
601 Garrett Building,
Baltimore, Md.

NOTICE TO CONTRACTORS.

Sealed proposals for building 7 sections of State Highway, aggregating about 33.28 miles in length, as follows:

Contract No. A-10—ALLEGANY COUNTY: One section along the National Pike, from Green Ridge to Washington county line, about 7.88 miles in length. (Resurfacing.)
Contract No. AA-5—ANNE ARUNDEL COUNTY: One section along the road from South River to Mt. Zion, about 8.00 miles in length. (Gravel.)

Contract No. B-6—BALTIMORE COUNTY: One section along the Black Gap Road, from Kingsville to Harford county line, about 2.25 miles in length. (Macadam, concrete or Bituminous Concrete.)

Contract No. C16—CARROLL COUNTY: One section along the Westminster-Manchester Road, from Myer's Entrance to Sherman's Lane, about 4.91 miles in length. (Concrete or Macadam.)

Contract No. G-6—GARRETT COUNTY: One section of road between Hoyes and Accident, about 2.75 miles in length. (Macadam or Concrete.)

Contract No. 9233—MONTGOMERY COUNTY: One section of road between Darnestown and Dawsonville, about 3.49 miles in length. (Macadam or Concrete.)

Contract No. W-11—WASHINGTON COUNTY: One section along the National Pike, between Harvey and Allegany county line, about 4.00 miles in length. (Resurfacing.)

Will be received by the State Roads Commission at its office, 601 Garrett Building, Baltimore, Md., until 12 M. on the 14th day of April, 1914, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications. Specifications and plans will be furnished by the Commission upon application and cash payment of \$1 for each contract, as hereafter no charges will be permitted.

No bid will be received unless accompanied by a certified check for the sum of five hundred (500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Act of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 27th day of March, 1914.

O. E. WELLER,

Chairman.

WM. L. MARCY,
Secretary.

Highway Improvement

OFFICE VIRGINIA STATE HIGHWAY COMMISSIONER,
Richmond, Va., March 18, 1914.

Bids will be received by the undersigned and the Board of Supervisors of Fairfax county up to 11 A. M. Wednesday, April 8, 1914, at the Clerk's office, Fairfax, Va., for grading, graveling and surface treatment of about thirty-two (32) miles of highway, as follows: The Telegraph Road, 9 miles; the Rolling Road, 6 miles; the River Road, 4.28 miles; and three sections of the Mt. Vernon Road, 12.24 miles in all.

Alternate bids are asked as follows: First, for grading, graveling and surface treatment, complete; second, for grading and graveling alone; third, for surface treatment alone.

Gravel will be furnished the contractor in pits free of cost.

Proposals for each road will be received in separate sealed envelopes.

Complete maps, profiles, plans and specifications can be seen at Clerk's office, Fairfax, Va.; at Rammel Hotel, Alexandria, Va.; at Office of Public Roads, Washington, D. C., or at this office, or will be furnished on application to the undersigned for the sum of \$2.50.

Bids are also asked at same place and date on bridges over Piney Branch, Dogue Run and Sherwood Branch.

Alternate bids are asked on concrete and on steel superstructure. Plans and specifications for these bridges on file as above noted, or can be had on application to the undersigned for the sum of 65 cents.

Bids on each separate road must be accompanied by certified check in the sum of five hundred dollars (\$500).

Bids on each separate bridge must be accompanied by certified check in the sum of two hundred and fifty dollars (\$250), but a certified check in the sum of one thousand dollars (\$1000) will entitle bidder to bid on all roads and bridges. Said check must be made payable to order of Chairman Board of Supervisors of Fairfax County, and will be held as guarantee for the acceptance and performance of the contract by the party to whom the contract may be awarded, and his failure to execute said contract will forfeit said check.

The successful bidders will be required to give bond in the amount of thirty-three and one-third (33 1/3%) per centum of amount of the contract.

The right is reserved to reject any and all bids.

Engineer will be at Rammel Hotel, Alexandria, Va., 9 A. M. on following dates to go over the several roads with contractors: March 26 and 27; April 1, 2, 6 and 7.

G. P. COLEMAN,
State Highway Commissioner.